703

Water Resources Data Florida

Water Year 1989

Volume 2A. South Florida Surface Water

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-89-2A
Prepared in cooperation with the State of Florida
and with other agencies

CALENDAR FOR WATER YEAR 1989

1988

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Water Resources Data
Florida
Water Year 1989

Volume 2A. South Florida Surface Water

by W.J. Haire and C.Price

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT FL-89-2A
Prepared in cooperation with the State of Florida
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

Prepared in cooperation with the
State of Florida
and with other agencies as listed
under cooperation

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1990

PREFACE

This volume of the annual hydrologic data report of Florida is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Florida are contained in four volumes.

Volume 1. Northeast Florida
Volume 2. South Florida
Volume 3. Southwest Florida
Volume 4. Northwest Florida

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. This report was prepared for publication by N. D. Verjano under the supervision of W. J. Haire, and E. Price. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data.

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This report was prepared in cooperation with the State of Florida and with other agencies under the general supervision of I. H. Kantrowitz, District Chief, Florida.

Hydrologic data for south Florida are contained in two volumes:

Volume 2A: Surface Water
Volume 2B: Ground Water

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16. Abstract (Limit: 200 words)
Water resources data for the 1989 water year in Florida consists of continuous or daily discharge for 295 streams, periodic discharge for 36 streams, miscellaneous discharge for 75 streams, continuous or daily stage for 154 streams, periodic stage for 13 streams, peak discharge for 57 streams, continuous daily tide stage for 12 streams, and peak stage for 30 streams, continuous or daily elevations for 72 lakes, periodic elevations for 72 lakes; continuous ground-water levels for 514 wells, periodic ground-water levels for 514 wells, and miscellaneous water level measurements for 2,678 wells; quality of water data for 149 surface water sites and 827 wells.

The data for South Florida include continuous or daily discharge for 61 streams, continuous or daily stage for 80 streams, continuous elevation for 1 lake; continuous ground-water levels for 220 wells, periodic ground-water levels for 320 wells, and miscellaneous water-level measurements for 329 wells; quality-of-water for 3 surface-water sites and 545 wells.

This data represent the National Water Data System records collected by the U.S. Geological Survey and cooperation local, state and federal agencies in Florida.

17. Document Analysis a. Descriptors
*Florida, *Hydrologic data, *Surface Water, *Ground Water, *Water Quality, Flow rate, Gaging Stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses, Elevations, Water wells

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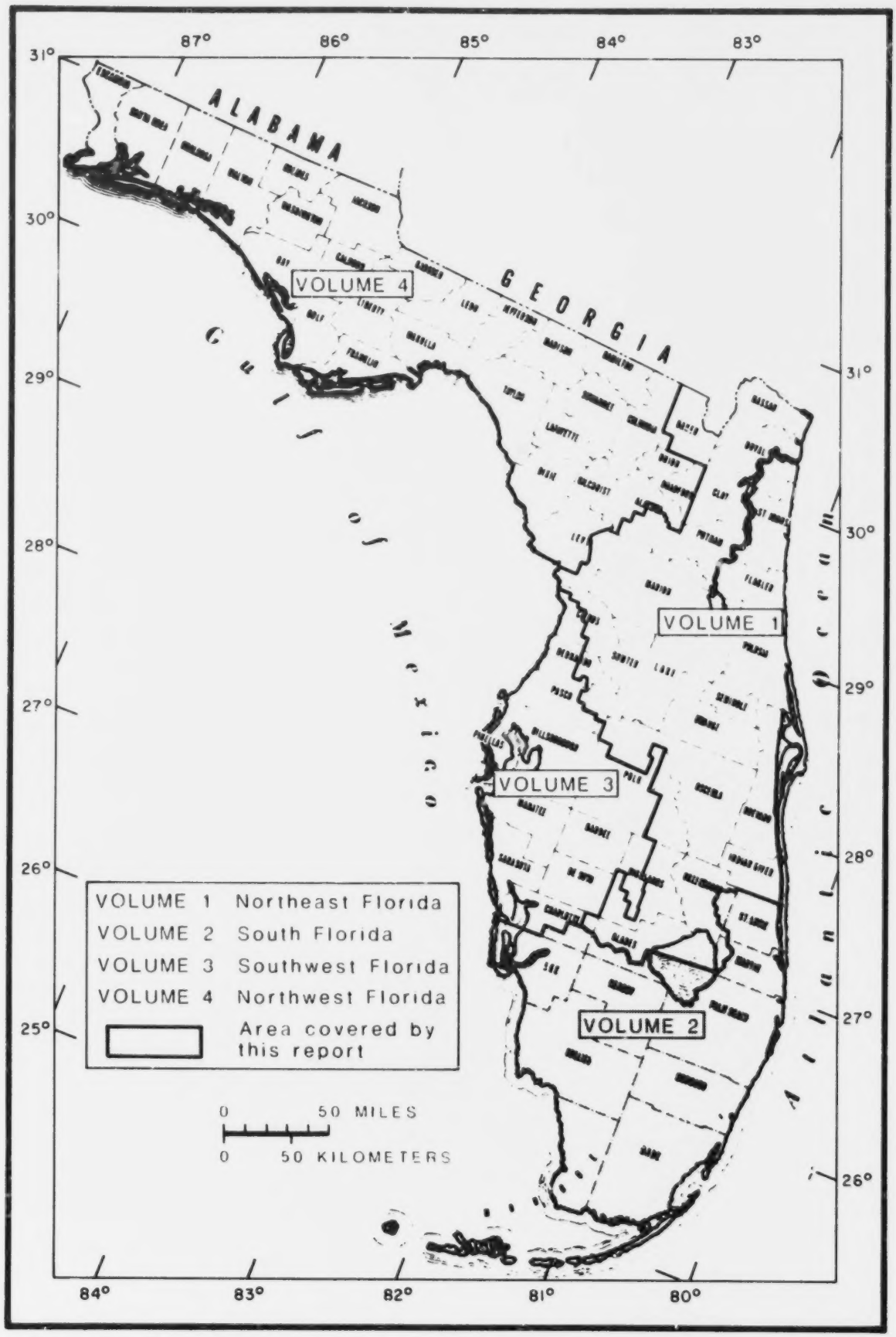

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* * * * * * * * * * * * * * *

WATER RESOURCES DATA - FLORIDA, 1989
Volume 2A: South Florida

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, County, and other Federal agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State.

The data for south Florida include continuous or daily discharge for 61 streams, continuous or daily stage for 80 streams, and peak stage for 12 streams; continuous elevations for 1 lake, continuous ground-water levels for 220 wells, periodic ground-water levels for 320 wells, and miscellaneous water-level measurements for 329 wells; quality-of-water data for 3 surface-water sites and 545 wells.

This series of annual reports for Florida began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water- resources data for Florida were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-water Supply of the United States." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report FL-89-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (305) 648-6181.

COOPERATION

The U.S. Geological Survey and agencies of the State of Florida have had cooperative agreements for the collection of water-resource records since 1931. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are:

Broward County Environmental Quality Control Board
Broward County Utilities Division
City of Boca Raton
City of Cape Coral
City of Fort Lauderdale
City of Hallandale
City of Hollywood
City of Pompano Beach
City of Stuart
Corps of Engineers, U.S. Army
County of Broward
County of Dade
County of Lee
County of Palm Beach
Florida Department of Environmental Regulation
Florida Department of Transportation
Florida Division of Parks and Recreation
Florida Keys Aquaduct Authority
Miami-Dade Water and Sewer Authority
National Aeronautics and Space Administration
National Park Service, U.S. Department of the Interior
Palm Beach County Solid Waste Authority
Reedy Creek Improvement District
South Dade Soil and Waste Conservation District
South Florida Water Management District
Town of Highland Beach
U.S. Air Force
U.S. Environmental Protection Agency

Assistance with funds or services was given by the U.S. Army Corps of Engineers, Jacksonville District, in collecting records at hydrologic stations throughout the Subdistrict.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

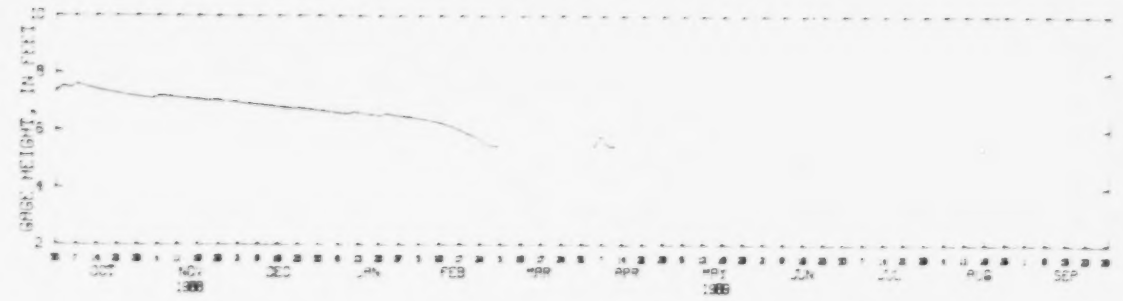
The 1989 water year started under very dry conditions with the wet season ending in October with below normal rainfall. November, the first month of the dry season, experienced normal rainfall with 2-4 inches in the Ft. Myers area to across Lake Okeechobee. Lake Okeechobee had declined 1 foot from an elevation of 15 feet starting in October to November. The rainfall and Tropical Storm Keith brought the decline in Lake elevation to a halt until the end of November. Dry conditions prevailed during December, necessitating releases from Lake Okeechobee to the Everglades Agricultural Area south of Lake Okeechobee. Near the end of December releases to Everglades National Park were reduced to zero. Below normal rainfall continued through January. Dry conditions during February caused Lake Okeechobee to decline over 1/2 foot by the end of the month. Heavy releases were made from Lake Okeechobee to alleviate conditions in the Everglades Agricultural Area. During March some relief from normal rainfall expected and releases from Lake Okeechobee helped maintain canal water levels in spite of Conservation Areas being very dry.

Most areas of South Florida received above normal rainfall during April except Ft. Myers. Most coastal structures were forced to make moderate to heavy releases to tide water but nearby well fields remained under drought stressed conditions. May brought less than normal rainfall and Lake Okeechobee continued to decline. The three water Conservation Areas No. 1, 2A and 3A remained extremely low. June, the first month that is normally the rainy season experienced low rainfall. Lake Okeechobee approached the 11 foot level and Conservation Areas remained dry. During May and June fires raged through the Everglades damaging more the 150,000 acres and destroying several gaging stations. No flow occurred at any of the Tamiami Canal Outlets from Miami to Carnestown from February to late June. The S-12 structures were closed completely from the end of December to beginning of September except for a few days in May when water was released for the fires. Abundant rainfall occurred in some areas of South Florida during July. The water Conservation Areas recovered substantially but in Lake Okeechobee area little charged. Two tropical waves later in July moved near but spirited no relief. Tropical Storm Chantal formed in northwestern Gulf of Mexico on July 31. During August the three Conservation Areas continued to recover thanks to rainfall but Lake Okeechobee charged little.

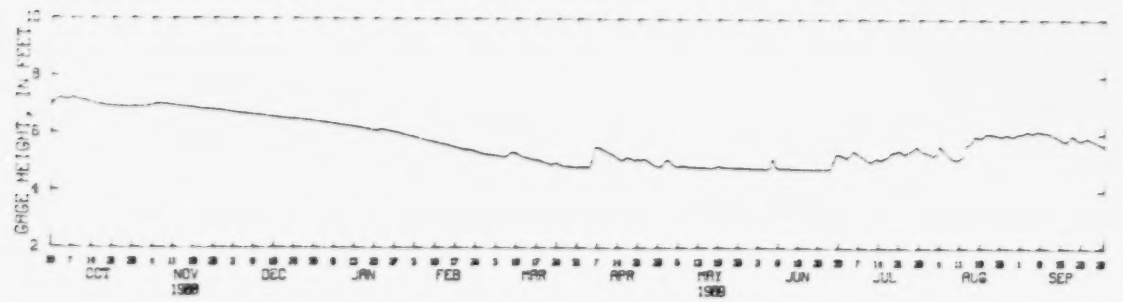
At the end of August, Hurricane Gabrielle loomed about [illegible] miles to the east. This was the first time since 1936 that seven tropical storms have developed before September. Hurricane Dean formed in the Atlantic and turned north to Bermuda instead of heading to South Florida. Two more storms, Hurricane Erin and tropical storm Felix formed in the Atlantic but were no threat to Florida. Normal rainfall during August occurred except in the Everglades Agricultural Area. Lake Okeechobee remained at a low level of around 11.50 feet by the end of August. September had lower than normal rainfall except around Conservation Areas which continued to recover. The first back pumping to be allowed into Lake for a long time occurred during the last half of September. Back pumping was suspended due to higher than expected nutrient level. Hurricane Gabrielle intensified to a category 4 hurricane but missed South Florida.

The dry conditions during the 1989 water year caused concern for the supply of ground water in the aquifers. Water level readings were taken twice a month to allow South Florida Management District to monitor for possible salt water intrusion near the coastal areas. Many wells had water levels that exceeded the period of record lowest daily maximum water level.

The following five hydrographs display water levels in the Everglades Area. During periods of missing record well either was dry or destroyed by fires in the Everglades.

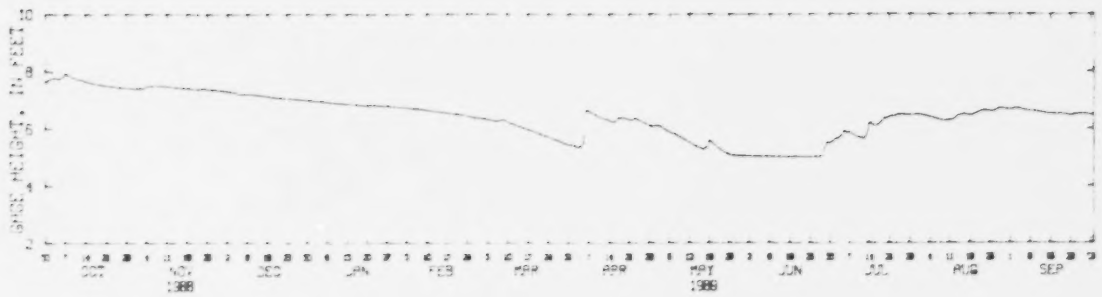


255818080391100 N.E. SHARK RIVER SLOUGH NO. 4 NORTH OF GROSSMAN
MEAN DAILY GAGE HEIGHT (FEET)

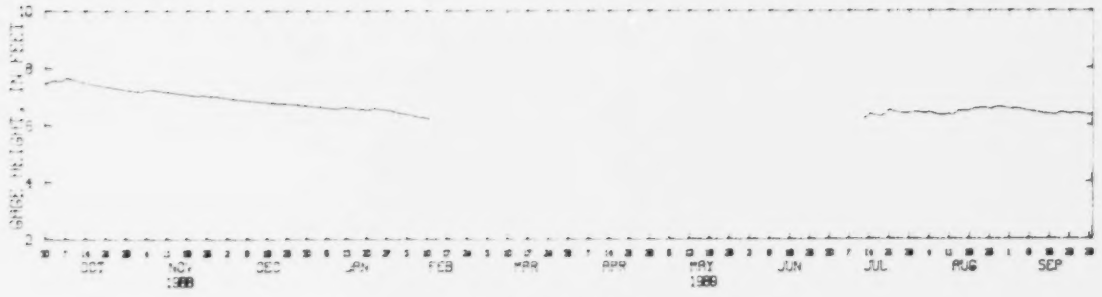


254315080331500 NORTHEAST SHARK RVR SLOUGH NO2 NR COOPERTOWN, FL
MEAN DAILY GAGE HEIGHT (FEET)

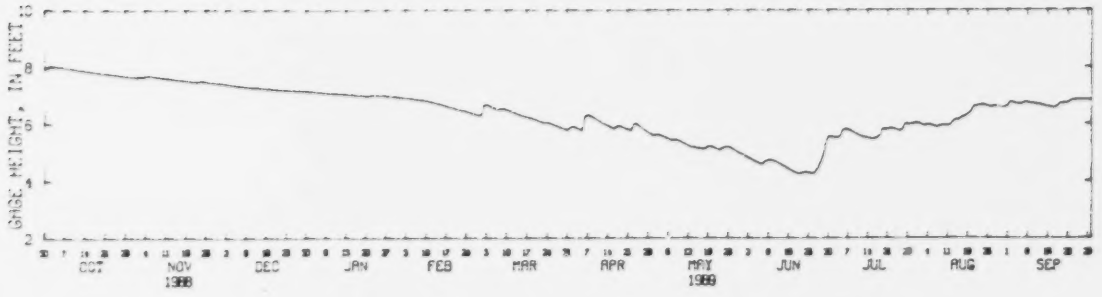
HYDROLOGIC CONDITIONS (Continued)



[illegible] NORTHEAST SHARK RIVER SLOUGH NO1 NR COOPERTOWN, FL
MEAN DAILY GAGE HEIGHT (FEET)



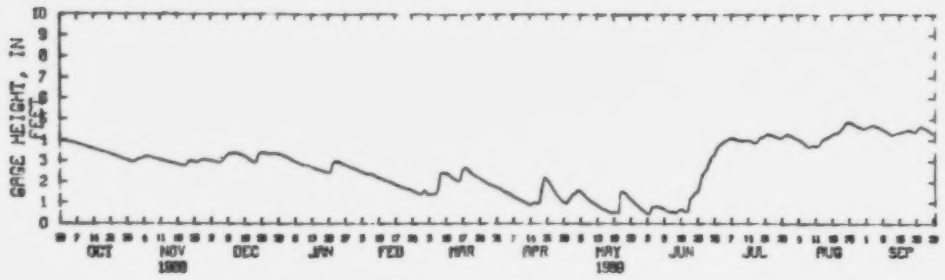
2537530803936OO N.E. SHARK RIVER SLOUGH NO. 5, SOUTH OF GROSSMAN
MEAN DAILY GAGE HEIGHT (FEET)



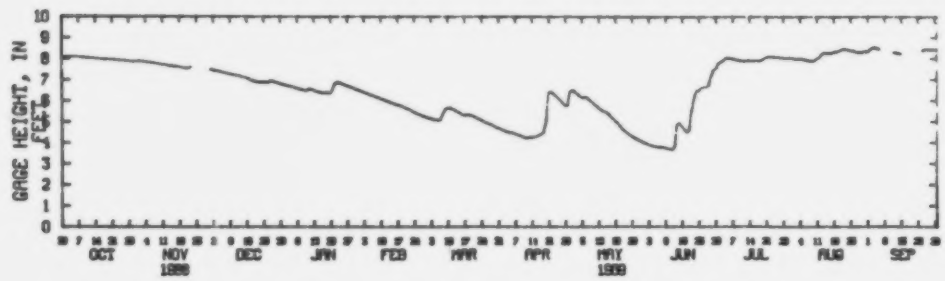
254754080344300 SHARK RIVER SLOUGH NO.1 IN CONS.3B NR COOPERTOWN
MEAN DAILY GAGE HEIGHT (FEET)

HYDROLOGIC CONDITIONS (Continued)

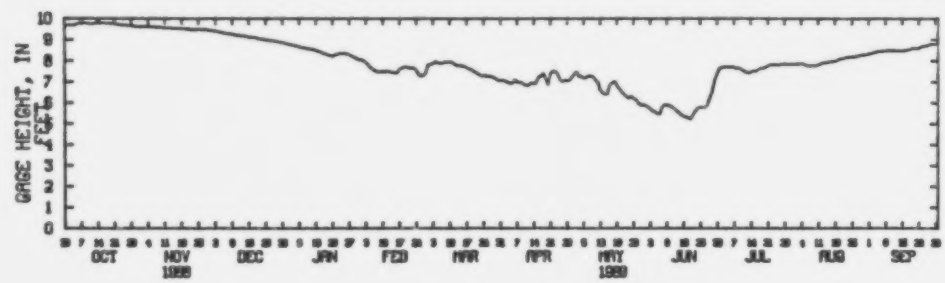
The following four hydrographs display water levels along the Tamiami Canal from Miami to Carnestown.



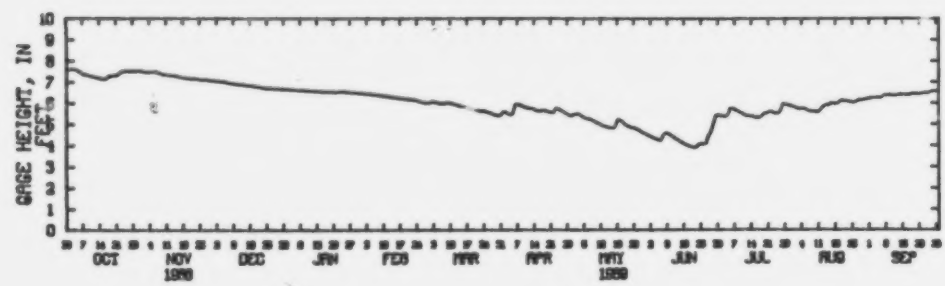
02288800 TAMIAMI CANAL OUTLETS, MONROE TO CARNESTOWN, FLA
MEAN DAILY GAGE HEIGHT (FEET)



02288900 TAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, F
MEAN DAILY GAGE HEIGHT (FEET)



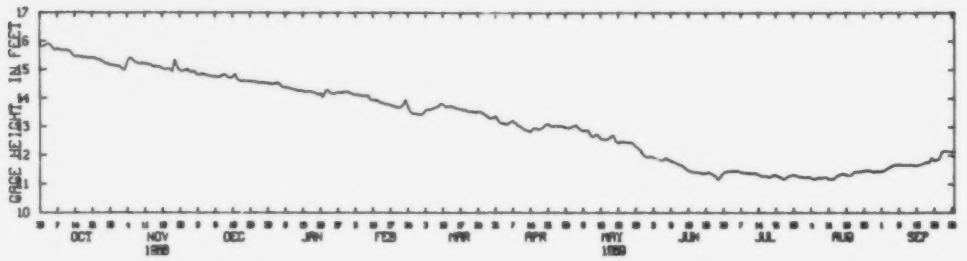
02289040 TAMIAMI C OUTLETS L67A TO 40 MI BND NR MIAMI, FL
MEAN DAILY GAGE HEIGHT (FEET)



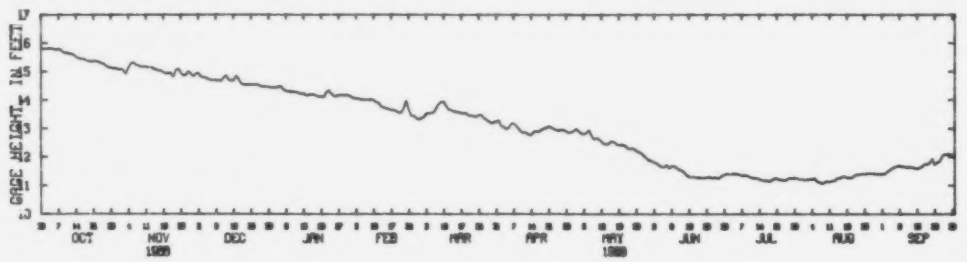
02289060 TAMIAMI CANAL OUTLETS L-30 TO L-67A NR MIAMI, FL
MEAN DAILY GAGE HEIGHT (FEET)

HYDROLOGIC CONDITIONS (Continued)

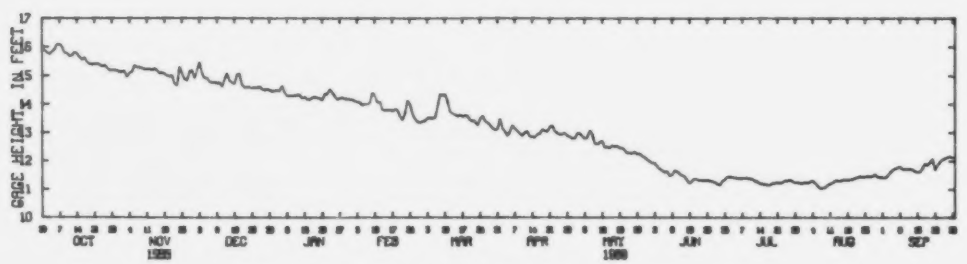
The following four hydrographs display the dramatic drop in Lake Okeechobee during the 1989 water year.



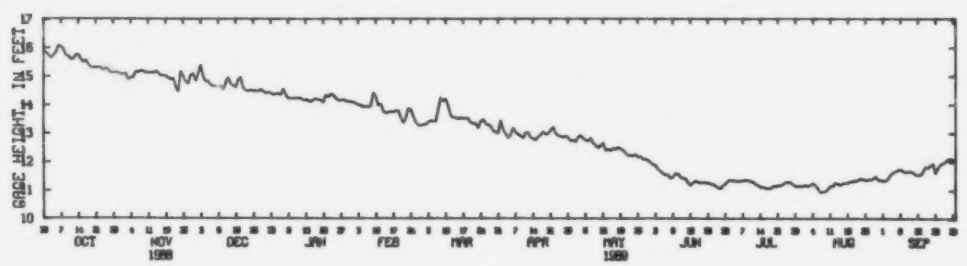
02276870 ST. LUCIE CANAL AT LAKE OKEECHOBEE, FLA.
MEAN DAILY GAGE HEIGHT (FEET)



02278000 WEST PALM BEACH CANAL AT S352 AT CANAL POINT FLA
MEAN DAILY GAGE HEIGHT (FEET)



02283498 N NEW RIVER CA AT S-2 AND S351 NR SOUTH BAY FL
MEAN DAILY GAGE HEIGHT (FEET)



02286399 MIAMI CA ABOVE HGS-3 AND S-3 AT LAKE HARBOR, FLA
MEAN DAILY GAGE HEIGHT (FEET)

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council.

The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Sation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research. The NASQAN stations in Florida are shown in figure 6.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

18. Alafia River at Lithia
19. Main Canal at Vero Beach
20. Kissimmee River at S65 near Okeechobee
21. Peace River at Arcadia
22. Myakka River near Sarasota
23. Fisheating Creek near Palmdale
24.
25. Caloosahatchee Canal at Ortona lock near Labelle
26.
27. Miami Canal at NW 36th Street, Miami
28. Tamiami Canal 10 mile bend to Monroe
29. Santa Fe River at Worthington Springs
30. Econfina Creek near Bennett
31. Sopchoppy River near Sopchoppy (hydrologic bench mark station)

Figure 2. NASQAN stations in the State of Florida.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1989 water year that began October 1, 1988, and ended September 30, 1989. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous observations are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 02228500, which appears just to the left of the station name, includes the 2-digit part number "02" plus the 6- to 12-digit downstream-order number "228500." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

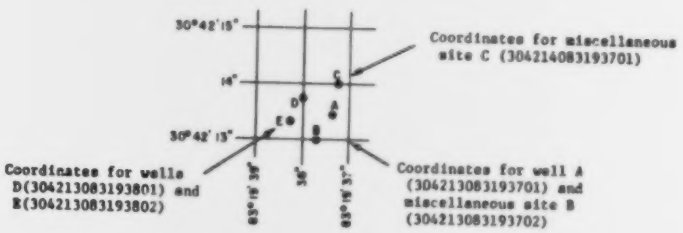

30°42'15"
14"
30°42'13"
Coordinates for miscellaneous site C (304214083193701)
Coordinates for wells D(304213083193801) and E(304213083193802)
Coordinates for well A (304213083193701) and miscellaneous site B (304213083193702)

Figure 3. System for numbering wells and miscellaneous sites. (latitude and longitude)

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake elevation, similarly, are those for which stage may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a stage-recording device or daily or weekly observations, but need not be. Because daily mean discharges and lake elevations commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Location of all complete-record and partial-record stations for which data are given in this report are shown in figures preceding each sub-basin

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily mean discharges.

Records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location, period of record, average discharge, historical extremes, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate base maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given.

DRAINAGE AREA.--Drainage areas are delineated and measured using the most accurate topographic maps available, and are updated as necessary.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see DEFINITION OF TERMS), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate

discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/l have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Miami Subdistrict Office of the Florida District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where water-quality data are collected systematically over a period of years, usually less frequently than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station or a periodic observation station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water

quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the quality of the water in its natural state. To assure this, certain measurements, such as water temperature, pH, alkalinity, specific conductance, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the natural water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For stations equipped with water quality monitors, the records consist of daily mean values for each constituent measured and are based upon unit values (hourly or 15-minute recordings).

Water Temperature

Water temperatures are measured at most of the water quality stations. In addition, water temperatures are taken at time of discharge measurements for water discharge stations. For stations where water temperatures are taken naturally once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature range; small streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste heat discharges.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or in some instances hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey Laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and

extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a recording or sampling device, which may be time- or event-activated, is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

Printed output	Remark
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Ground-water level data from a statewide network of observation wells are published herein. The records include data from wells equipped with water-level recorders and data from wells where water levels are measured periodically.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, manometer, or from the graph or punched tape of a water-level recorder. The measurements in this report are given in feet above National Geodetic Vertical Datum of 1929 or in some tables as feet below land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on hourly, daily, weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with reference to National Geodetic Vertical Datum of 1929, and the dates of their occurrence.

A table of water levels follows the station description for each well. For wells equipped with recorders, only abbreviated tables are published; generally, daily maximums are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality in the report area. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published immediately following the ground-water-level records of each county. Data for quality of ground water are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. The Remark Codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The National **WAT**er Data **STO**rage and **RE**trieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials, for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day (cubic feet per second per day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

CFSM (cubic foot per second per square mile) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloro-platinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (ft^3/s or cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentaiton methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Partical-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one millionth of the amount of radioactivity represented by a micro-curie, which is the quantity of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegrations per minute.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45 µm filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in th· sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1989, is called the "1989 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.

3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathbun, N. Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

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4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

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4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS-TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

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7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

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STAGE, DISCHARGE, AND WATER QUALITY OF STREAMS

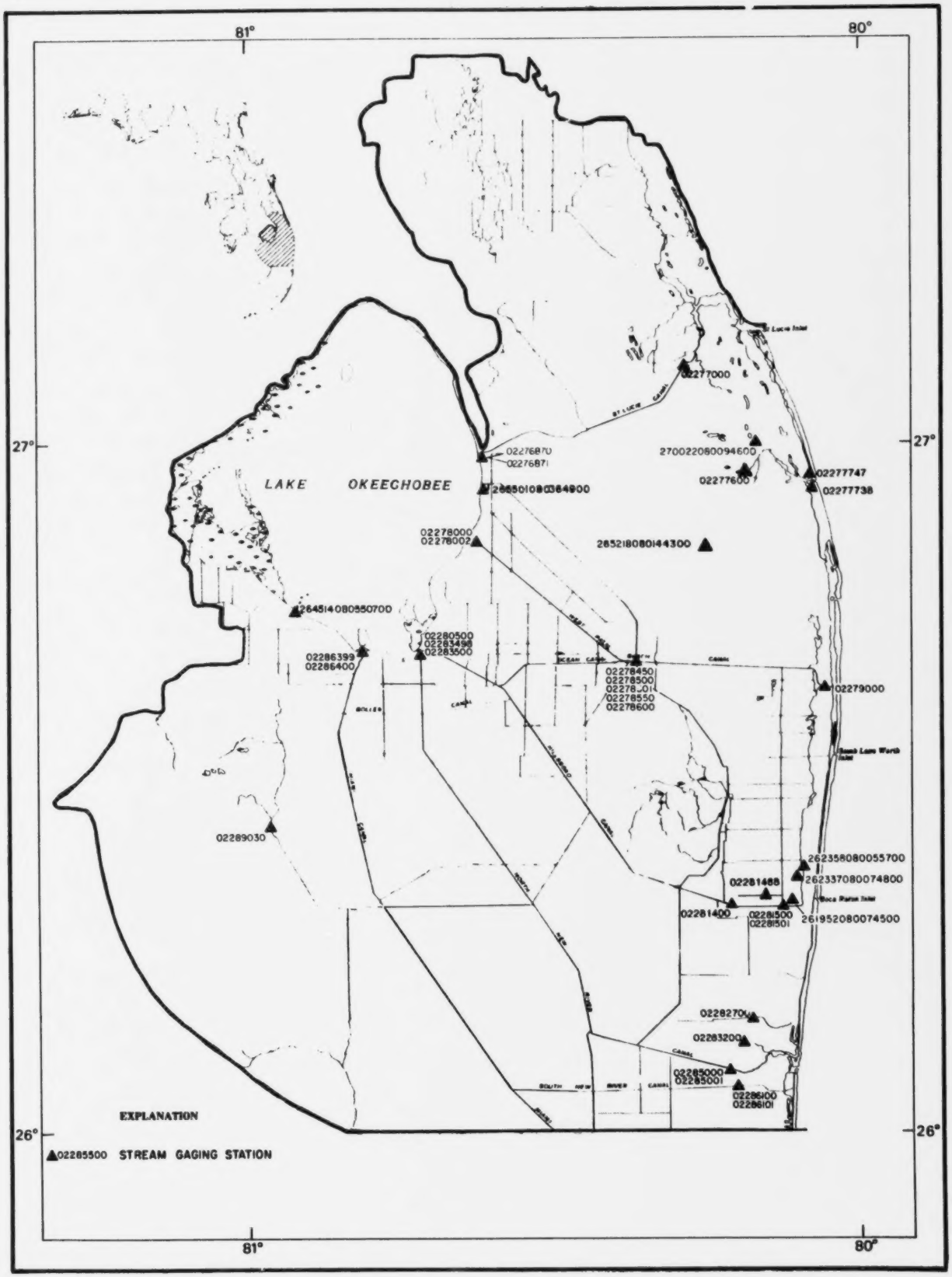


FIGURE 4 . Location of gaging stations in the portion of the Everglades and the southeastern coastal area north of latitude 26 degrees

02277000 ST. LUCIE CANAL AT LOCK, NEAR STUART, FL

LOCATION.--Lat 27°06'39", long 80°17'06", in Hanson Grant, T.39 S., R.41 E., Martin County, Hydrologic Unit 03090202, at upstream end of right lock wall, 6.3 mi southwest of Stuart.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1952 to current year. Gage height records collected at same site since December 1924 are contained in files of the South Florida Water Management District and U.S. Army Corps of Engineers.

REVISED RECORDS.--WRD FL-80-2A: 1978-1979.

GAGE.--Water-stage recorders. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 3, 1948, nonrecording gage at same site and at various datums. Sept. 5, 1952, to Jan. 1, 1955, auxiliary water-stage recorder at Arundel Bridge, 1.9 mi upstream, NGVD.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by lock near Stuart.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--37 years, 794 ft^3/s, 575,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 11,500 ft^3/s Mar. 26, 1970; lock closed and flow consists of leakage and lockage estimated as 4.0 ft^3/s many days during 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,830 ft^3/s Apr. 10; minimum daily discharge, 5.0 ft^3/s May 22-25, estimated leakage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275	286	290	298	293	286	299	15	528	237	28	28
2	289	271	276	302	275	285	297	9.0	378	323	929	36
3	275	294	280	291	300	289	298	93	100	400	1770	50
4	270	1120	286	279	301	295	298	51	23	126	1670	42
5	279	980	276	289	298	292	299	671	21	30	1390	20
6	274	672	278	294	293	282	299	1490	6.8	30	1040	18
7	272	392	279	275	291	280	299	1620	8.6	29	727	21
8	276	287	287	295	295	277	299	1300	6.8	56	557	27
9	279	305	284	287	283	282	1220	893	5.2	41	518	29
10	266	283	294	287	283	275	1830	621	21	39	146	34
11	271	289	276	286	284	287	1770	479	27	39	23	21
12	283	299	312	284	294	296	1450	416	6.8	32	35	25
13	284	302	365	275	288	290	1060	219	6.8	31	35	19
14	278	282	269	277	299	291	752	18	14	33	34	16
15	293	286	272	291	285	301	617	16	10	46	27	26
16	303	294	276	275	287	303	592	18	12	36	24	37
17	279	284	280	300	294	295	366	8.7	28	20	24	30
18	283	298	273	285	299	303	347	14	43	25	25	28
19	277	286	266	289	299	305	297	6.8	10	25	40	23
20	287	301	272	294	293	291	297	10	12	27	22	16
21	284	286	275	280	298	301	360	23	8.4	22	15	18
22	284	264	287	264	290	298	319	5.0	6.7	31	35	23
23	290	503	281	276	295	304	295	5.0	8.5	41	261	32
24	289	433	271	288	286	295	297	5.0	20	20	29	38
25	283	327	271	285	289	296	298	5.0	12	18	125	19
26	275	296	293	294	287	292	298	5.3	862	25	24	13
27	283	296	294	285	291	296	298	729	1760	31	33	24
28	278	290	301	297	292	291	297	1560	1670	38	18	20
29	303	279	310	287	---	291	297	1520	1300	37	15	21
30	295	278	296	295	---	292	298	1280	918	32	18	22
31	294	---	295	296	---	292	---	912	---	32	18	---
TOTAL	8751	11063	8865	8900	8162	9053	16043	14017.8	7833.6	1952	9923	776
MEAN	282	369	286	287	292	292	535	452	261	63.0	320	25.9
MAX	303	1120	365	302	301	305	1830	1620	1760	400	1770	50
MIN	266	264	266	264	275	275	295	5.0	5.2	18	15	13
AC-FT	17360	21940	17580	17650	16190	17960	31820	27800	15540	3870	19680	1540

CAL YR 1988 TOTAL 194537.0 MEAN 532 MAX 2480 MIN 264 AC-FT 385900
WTR YR 1989 TOTAL 105339.4 MEAN 289 MAX 1830 MIN 5.0 AC-FT 208900

02277000 ST. LUCIE CANAL AT LOCK, NEAR STUART, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.95	14.09	13.97	14.24	14.19	13.45	13.26	13.20	11.80	11.45	11.27	11.52
2	14.18	14.01	13.93	14.24	14.11	13.49	13.04	13.32	11.84	11.48	11.04	11.60
3	13.98	13.94	14.19	14.10	14.11	13.78	13.05	13.22	11.87	11.49	10.67	11.65
4	14.12	14.46	14.08	14.01	14.13	13.73	13.02	12.87	11.87	11.53	10.44	11.71
5	14.12	14.09	13.99	14.03	14.08	13.66	13.10	12.73	11.85	11.56	10.56	11.73
6	14.06	14.45	14.28	14.16	14.06	13.70	13.26	12.57	11.90	11.52	10.93	11.76
7	14.03	13.95	14.31	14.25	14.08	13.77	13.42	12.48	12.04	11.43	11.14	11.73
8	14.20	14.25	14.20	14.23	14.09	13.77	13.23	12.37	11.89	11.44	11.19	11.75
9	14.24	14.07	14.02	14.19	13.90	13.91	12.81	12.45	11.86	11.42	11.28	11.73
10	14.00	14.12	13.91	14.14	13.91	13.83	12.57	12.72	11.82	11.40	11.32	11.69
11	14.12	14.21	14.08	14.13	14.00	13.73	12.39	12.72	11.76	11.43	11.27	11.67
12	14.22	14.21	14.26	14.21	13.91	13.77	12.53	12.50	11.74	11.43	11.24	11.69
13	14.04	14.20	14.21	14.25	13.80	13.79	12.66	12.56	11.69	11.45	11.26	11.68
14	14.10	14.00	14.10	14.19	13.79	13.74	12.77	12.57	11.65	11.43	11.42	11.70
15	14.16	14.19	14.19	14.24	13.74	13.66	13.00	12.62	11.54	11.35	11.45	11.72
16	14.13	14.24	14.18	14.21	13.72	13.64	12.89	12.68	11.48	11.35	11.45	11.76
17	14.13	14.05	14.12	14.19	13.68	13.59	12.76	12.74	11.45	11.37	11.41	11.84
18	14.22	14.04	14.02	14.18	13.70	13.60	13.03	12.41	11.39	11.29	11.42	11.87
19	14.05	14.20	14.25	14.08	13.64	13.59	13.03	12.42	11.44	11.35	11.35	11.89
20	14.14	14.27	14.16	14.18	13.64	13.52	13.12	12.50	11.46	11.43	11.37	11.83
21	14.10	14.12	14.02	14.05	13.72	13.55	13.17	12.54	11.44	11.38	11.53	12.07
22	14.17	14.06	14.21	14.33	13.82	13.52	12.97	12.50	11.41	11.30	11.70	11.86
23	14.23	14.18	14.26	14.42	14.01	13.56	12.97	12.50	11.39	11.21	12.15	11.94
24	13.93	14.12	14.25	14.20	13.70	13.58	13.04	12.52	11.50	11.20	12.08	11.96
25	14.15	14.04	14.21	14.13	13.52	13.56	13.01	12.44	11.41	11.20	11.71	12.23
26	14.24	14.24	14.17	14.17	13.52	13.46	13.02	12.31	11.19	11.32	11.55	12.27
27	14.14	14.33	13.91	14.26	13.54	13.31	13.06	12.10	10.65	11.35	11.54	12.30
28	14.19	14.25	14.06	14.21	13.50	13.27	12.94	11.72	10.47	11.41	11.50	12.17
29	14.10	14.13	14.05	14.22	---	13.26	12.92	11.46	10.93	11.41	11.43	12.17
30	13.97	14.09	14.20	14.27	---	13.35	13.09	11.44	11.27	11.34	11.50	12.18
31	13.98	---	14.16	14.24	---	13.43	---	11.61	---	11.32	11.49	---
MEAN	14.11	14.15	14.13	14.19	13.84	13.60	12.97	12.48	11.53	11.39	11.34	11.86
MAX	14.24	14.46	14.31	14.42	14.19	13.91	13.42	13.32	12.04	11.56	12.15	12.30
MIN	13.93	13.94	13.91	14.01	13.50	13.26	12.39	11.44	10.47	11.20	10.44	11.52

CAL YR 1988 MEAN 14.25 MAX 14.89 MIN 13.77
WTR YR 1989 MEAN 12.96 MAX 14.46 MIN 10.44

270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, FL

LOCATION.--Lat 27°00'22", long 80°09'46", in NE¼ sec.8, T.40 S., R.42 E., Martin County, Hydrologic Unit 03090202, in Jonathan Dickinson State Park, near left bank on foot bridge 1.5 mi upstream from mouth, 2.2 mi south of State Highway 708, and 4.0 mi southwest of Hobe Sound.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1979 to September 1981, October 1984 to current year. Prior to October 1988 gage heights and discharge only.

GAGE.--Water-stage and rainfall recorders. Elevation of gage is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily stage and discharge. Records good.

AVERAGE DISCHARGE.--5 years (water years 1981, 1985-88), 9.59 ft^3/s, 6,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 229 ft^3/s Nov. 24, 1984, gage height, 6.16 ft; minimum, 0.00 ft^3/s June 1, 2, 4-6, 1989, gage height, 1.25 ft; minimum gage height, 1.06 ft, May 18, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft^3/s July 22, gage height, 2.80 ft; minimum, 0.00 ft^3/s June 1, 2, 4-6, gage height, 1.25 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.47	.73	.38	1.4	.36	.93	.49	.05	.67	---	4.0
2	1.0	.45	.67	.37	1.3	.54	.86	.40	.03	.57	---	3.4
3	1.0	.47	.63	.37	1.2	1.3	.79	.35	.05	.55	---	2.9
4	.97	.85	.60	.41	1.2	1.3	.68	.30	.05	.51	---	2.5
5	.86	.98	.55	.45	1.2	1.3	.64	.27	.01	.73	---	2.3
6	1.1	1.2	.57	.39	1.1	1.5	.79	.27	.09	.78	---	2.0
7	1.1	1.1	.57	.35	1.0	1.8	.67	.23	.98	.60	---	1.7
8	1.0	1.1	.53	.32	.92	2.2	.59	.19	1.9	.54	---	1.5
9	1.0	1.0	.49	.32	.99	2.7	.53	.18	1.0	.45	---	1.4
10	.98	1.0	.46	.32	1.1	2.9	.49	.16	.85	.40	---	1.3
11	.90	.97	.44	.32	1.1	3.0	.45	.17	.71	.36	---	1.2
12	.84	.90	.76	.30	1.1	2.9	.42	.17	.63	.34	---	1.2
13	.80	.87	.66	.29	1.0	2.7	.42	.15	.58	.32	---	1.1
14	.74	.82	.62	.30	.93	2.5	.43	.14	.51	.77	---	1.0
15	.71	1.1	.58	.29	.81	2.2	.56	.27	.45	1.5	---	.96
16	.87	.84	.53	.28	.74	2.2	.62	.41	.39	1.9	---	.91
17	.88	.84	.48	.28	.67	2.2	.62	.27	.35	3.4	---	.93
18	.96	.82	.44	.29	.63	2.4	.60	.24	.32	4.6	8.2	1.1
19	.92	.80	.40	.29	.59	2.2	.54	.22	.29	7.2	---	1.3
20	.87	.89	.41	.58	.52	2.0	.89	.19	.31	6.9	---	1.2
21	.71	.90	.38	1.5	.48	1.8	1.1	.16	.34	8.0	---	1.0
22	.65	.90	.[illegible]	1.6	.45	1.6	.97	.15	.34	11	---	.90
23	.63	.90	.[illegible]	1.6	.42	1.5	.84	.14	.28	10	---	.83
24	.58	.90	.4[illegible]	2.0	.41	1.4	.73	.14	.29	8.5	---	1.0
25	.52	.87	.41	2.0	.40	1.4	.64	.13	.31	7.3	---	1.1
26	.48	.93	.40	2.0	.38	1.3	.59	.12	.28	5.8	---	1.2
27	.46	.97	.41	1.9	.36	1.2	.52	.10	.27	---	---	1.3
28	.43	.92	.43	1.9	.34	1.3	.45	.09	.25	---	---	1.2
29	.38	.78	.41	1.7	---	1.2	.42	.08	.27	---	---	1.1
30	.36	.74	.40	1.6	---	1.1	.48	.06	.49	---	---	.81
31	.46	---	.40	1.5	---	.99	---	.07	---	---	4.8	---
TOTAL	24.26	26.28	15.95	26.20	22.74	54.99	19.26	6.31	12.67	---	---	44.34
MEAN	.78	.88	.51	.85	.81	1.77	.64	.20	.42	---	---	1.48
MAX	1.1	1.2	.76	2.0	1.4	3.0	1.1	.49	1.9	---	---	4.0
MIN	.36	.45	.40	.28	.34	.36	.42	.06	.01	---	---	.81
AC-FT	48	52	32	52	45	109	38	13	25	---	---	88

CAL YR 1988 TOTAL 2122.57 MEAN 5.80 MAX 37 MIN .36 AC-FT 4210

270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.68	1.48	1.64	1.47	1.76	1.47	1.62	1.53	1.27	1.58	---	2.28
2	1.66	1.47	1.61	1.46	1.73	1.55	1.60	1.48	1.27	1.55	---	2.20
3	1.66	1.48	1.60	1.46	1.72	1.76	1.57	1.46	1.27	1.54	---	2.14
4	1.65	1.61	1.59	1.48	1.72	1.77	1.55	1.43	1.27	1.52	---	2.07
5	1.62	1.65	1.57	1.50	1.71	1.76	1.57	1.42	1.26	1.60	---	2.03
6	1.69	1.70	1.58	1.47	1.70	1.82	1.63	1.41	1.30	1.62	---	1.98
7	1.67	1.68	1.58	1.45	1.67	1.88	1.58	1.39	1.56	1.56	---	1.92
8	1.67	1.68	1.56	1.44	1.64	1.95	1.56	1.36	1.86	1.53	---	1.88
9	1.66	1.66	1.55	1.44	1.66	2.04	1.53	1.35	1.70	1.50	---	1.85
10	1.65	1.66	1.53	1.44	1.69	2.07	1.52	1.34	1.64	1.47	---	1.81
11	1.63	1.65	1.52	1.43	1.69	2.08	1.50	1.34	1.60	1.45	---	1.80
12	1.61	1.63	1.65	1.42	1.69	2.05	1.49	1.34	1.57	1.44	---	1.79
13	1.60	1.62	1.61	1.42	1.67	2.02	1.49	1.32	1.55	1.43	---	1.75
14	1.58	1.61	1.60	1.42	1.65	1.99	1.49	1.32	1.52	1.53	---	1.74
15	1.57	1.64	1.58	1.42	1.61	1.95	1.54	1.39	1.50	1.79	---	1.72
16	1.62	1.61	1.56	1.41	1.59	1.94	1.57	1.49	1.47	1.85	---	1.71
17	1.62	1.61	1.54	1.41	1.56	1.94	1.57	1.42	1.45	2.13	---	1.71
18	1.65	1.61	1.52	1.42	1.55	1.98	1.56	1.40	1.43	2.27	2.70	1.75
19	1.63	1.60	1.51	1.42	1.54	1.94	1.54	1.38	1.42	2.52	---	1.80
20	1.62	1.63	1.49	1.51	1.51	1.90	1.63	1.36	1.43	2.49	---	1.77
21	1.57	1.63	1.51	1.81	1.49	1.86	1.72	1.34	1.45	2.58	---	1.73
22	1.55	1.63	1.54	1.82	1.50	1.83	1.68	1.33	1.45	2.79	---	1.69
23	1.54	1.63	1.52	1.84	1.50	1.80	1.64	1.32	1.41	2.77	---	1.67
24	1.52	1.63	1.49	1.89	1.49	1.79	1.60	1.32	1.42	2.67	---	1.73
25	1.50	1.62	1.48	1.90	1.49	1.78	1.58	1.31	1.43	2.60	---	1.75
26	1.48	1.64	1.48	1.89	1.48	1.76	1.55	1.30	1.41	2.49	---	1.76
27	1.47	1.65	1.48	1.87	1.46	1.73	1.53	1.29	1.41	---	---	1.78
28	1.46	1.67	1.49	1.86	1.46	1.71	1.51	1.28	1.40	---	---	1.76
29	1.43	1.65	1.48	1.84	---	1.68	1.50	1.28	1.41	---	---	1.72
30	1.42	1.64	1.48	1.81	---	1.66	1.52	1.27	1.49	---	---	1.64
31	1.47	---	1.47	1.79	---	1.64	---	1.28	---	---	2.38	---
MEAN	1.59	1.62	1.54	1.59	1.60	1.84	1.56	1.36	1.45	---	---	1.83
MAX	1.69	1.70	1.65	1.90	1.76	2.08	1.72	1.53	1.86	---	---	2.28
MIN	1.42	1.47	1.47	1.41	1.46	1.47	1.49	1.27	1.26	---	---	1.64

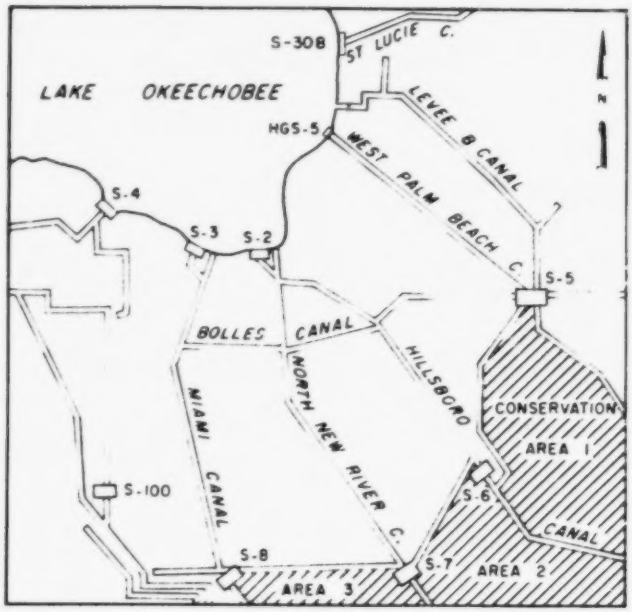
CAL YR 1988 MEAN 2.24 MAX 4.07 MIN 1.42

270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, FL

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
SUMMATION VALUES

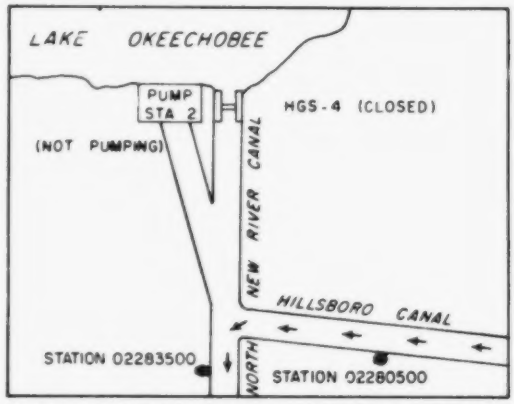
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	---	.00	.34	.00
2	.56	.07	.00	.00	.00	.76	.00	.00	---	.00	.00	---
3	.07	.28	.00	.00	.00	1.66	.00	.00	---	.00	.55	---
4	.00	.77	.00	.00	.00	.00	.00	.00	---	.00	.00	---
5	.00	.63	.00	.00	.00	.00	.83	.00	---	.83	.00	---
6	.70	.00	.07	.00	.00	.34	.00	.00	---	.00	.00	---
7	.00	.07	.07	.00	.00	.21	.00	.00	3.59	.00	.00	---
8	.00	.00	.00	.00	.00	.28	.00	.00	.00	.00	.55	---
9	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.21	---
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	---
11	.00	.00	.28	.00	.00	.00	.00	.00	.00	.00	2.34	---
12	.00	.00	.35	.00	.00	.00	.00	.00	.00	.00	.00	---
13	.00	.00	.00	.00	.00	.00	.28	---	.00	.00	1.79	---
14	.00	.00	---	.00	.00	.00	.00	---	.00	2.07	.21	---
15	.00	.00	---	.00	.00	---	.83	---	.00	.00	.00	---
16	.21	.00	---	.00	.00	---	.28	---	.00	1.66	.00	---
17	.00	.00	---	.00	.00	---	.07	---	.00	.07	.41	---
18	.00	.00	---	.00	.00	---	.00	---	.00	.97	.00	---
19	.00	.00	---	.00	.00	---	.00	---	.00	.00	.21	---
20	.00	.28	---	1.46	.00	---	1.52	---	.00	.83	.21	---
21	.00	.00	.00	.21	.00	---	.07	---	.07	.00	.00	---
22	.00	.00	.35	.21	.00	---	.00	---	.07	.55	2.48	---
23	.00	.00	.00	.00	.00	---	.00	---	.00	.07	.00	---
24	.00	---	.00	.00	.00	---	.00	---	.00	.00	.00	---
25	.00	---	.07	.00	.00	---	.00	---	.00	.14	.00	---
26	.00	---	.00	.00	.00	---	.00	---	.00	.00	.00	---
27	.00	---	.00	.00	.00	---	.00	---	.00	.00	.00	---
28	.00	.00	.07	.00	.07	.00	.00	---	.07	.00	.00	---
29	.00	.00	.00	.00	---	.00	.00	---	.07	.07	.00	---
30	.00	.00	.00	.00	---	.00	.21	---	1.03	.00	.00	---
31	.07	---	.00	.00	---	.00	---	---	---	.83	.00	---
TOTAL	1.61	2.10	1.26	1.88	0.14	3.25	4.09	0.00	4.90	8.09	9.37	0.00
MEAN	.05	.08	.05	.06	.01	.18	.14	.00	.20	.26	.30	.00
MAX	.70	.77	.35	1.46	.07	1.66	1.52	.00	3.59	2.07	2.48	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

WTR YR 1989 TOTAL 36.69 MEAN .13 MAX 3.59 MIN .00

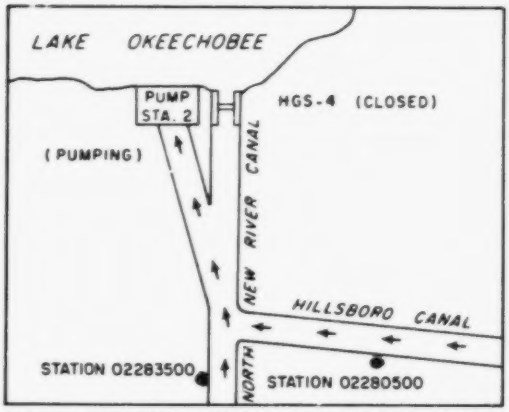


LOCATION

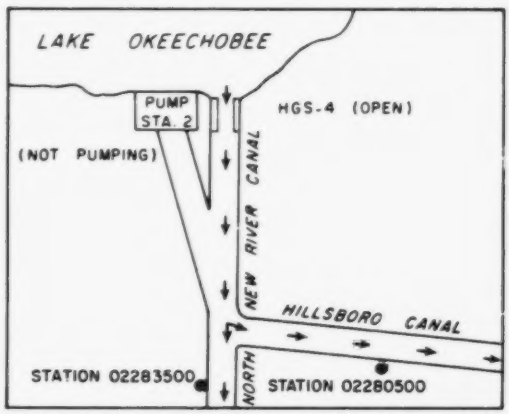
TYPICAL FLOW PATTERNS AT HURRICANE GATE STRUCTURES



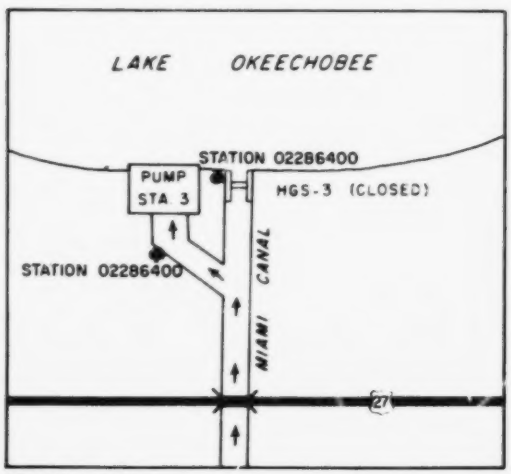
NORTH NEW RIVER CANAL – HILLSBORO CANAL



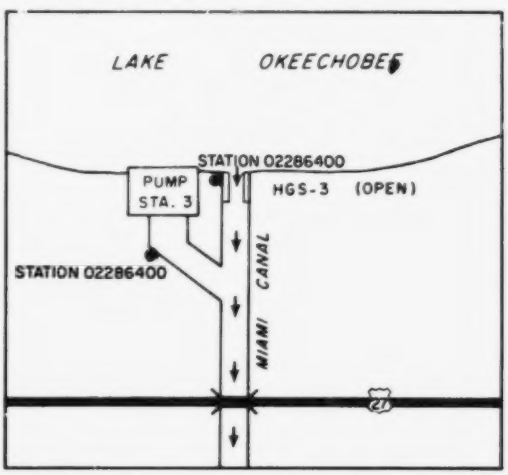
NORTH NEW RIVER CANAL – HILLSBORO CANAL



NORTH NEW RIVER CANAL – HILLSBORO CANAL



MIAMI CANAL



MIAMI CANAL

FIGURE 5. Typical flow patterns at Hurricane Gate Structures.

02276870 ST. LUCIE CANAL AT LAKE OKEECHOBEE, FL

LOCATION.--Lat 26°59'00", long 80°37'00", in sec.22, T.40 S., R.37 E., Martin County, Hydrologic Unit 03090202, on right bank in control house of structure 308 at Lake Okeechobee, 0.1 mi west of U.S. Highway 441, and 24 mi upstream from control structure 80.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1931 to September 1952, October 1981 to current year. Prior to October 1946, published as St. Lucie Canal at lock 1, at Lake Okeechobee. Previously published as station number 02276500. All data stored under current station number.

GAGE.--Water-stage recorder, and gate-opening indicators. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Jan. 17, 1934, staff gage at site 0.4 mi downstream at different datum. Jan. 17, 1934, to Mar. 15, 1951, water-stage recorder at site 0.8 mi downstream at datum 1.56 ft lower. Mar. 16, 1951, to September 1952, water-stage recorder at bridge on U.S. Highway 441 at present datum. Jan. 17, 1934, to September 1952, auxiliary water-stage recorder 10.9 mi downstream. Aug. 1, 1986 to June 20, 1989, electromagnetic velocity meter recorder.

REMARKS.--Estimated daily discharge: May 6-31, July 29-31. Records poor. Flow regulated by control structure 308 gates and lock at Lake Okeechobee. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades (negative figures indicate reverse flow towards Lake Okeechobee). Discharge computed from relations between discharge, head, gate openings, and slope.

COOPERATION.--Lockage and gate-operation record provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--28 years (Water years 1932-52, 1982-88), 1,050 ft^3/s, 760,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,150 ft^3/s Feb. 26, 1983; maximum gage height, 18.80 ft Mar. 24, 1983; maximum daily reverse flow, 3,280 ft^3/s Oct. 12, 1987; minimum gage height, 10.28 ft Mar. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,130 ft^3/s Apr. 11; maximum gage height, 16.16 ft Oct. 3; maximum daily reverse flow, 2,620 ft^3/s Mar. 4; no flow for many days; minimum gage height, 10.67 ft Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	432	350	246	68	598	-1050	-15	.00		-248	---	-1090
2	292	347	456	105	1000	-453	186	.00		-504	---	-1410
3	369	370	271	290	285	-1040	435	-461		-288	---	-1740
4	411	137	100	449	792	-2620	328	564		-406	---	-1670
5	245	.00	437	501	691	-2020	464	-799		-948	---	-1350
6	324	.00	317	474	1100	-1570	.00	-447		-1130	1630	-1490
7	336	113	59	351	1040	-1600	.00	-297		-831	370	-1370
8	253	70	76	354	1340	-920	.00	632		-862	-133	-1150
9	24	125	164	360	1270	-789	1400	602		-809	-926	-1200
10	234	272	157	396	555	-601	2460	201		-225	-1080	-931
11	434	254	146	353	-540	-142	3130	311		-25	-1420	-881
12	272	169	124	197	206	-1590	1880	25		-421	-1070	-739
13	331	170	23	192	-567	-984	1590	-50		-380	-1190	-670
14	389	200	.00	45	-379	-871	-158	882		-588	-1630	-504
15	253	222	.00	92	-308	-678	-1140	248		-450	-2110	-589
16	137	98	.00	227	-132	-1440	436	674		-558	-1720	-881
17	98	202	.00	178	142	-192	.00	.00		-446	-1580	-1270
18	23	227	.00	286	895	-1250	.00	1230		-495	-1780	-1050
19	103	201	.00	577	1070	-642	.00	-236		-940	-1770	-938
20	168	80	.00	299	1050	-729	-82	-121		-1070	-1380	-1130
21	98	15	.00	-590	-771	-1120	.00	-348		-1030	-1910	350
22	96	48	.00	-391	524	158	.00	-18		-1020	-1220	-1510
23	22	.00	.00	-541	965	-1180	-33	74		-832	.00	-601
24	233	.00	.00	-161	1090	203	36	682		-629	.00	-688
25	378	63	.00	222	588	967	397	493		-575	-1400	-844
26	236	35	.00	-117	-714	544	400	-248		-883	-1390	-1080
27	189	.00	.00	-252	-796	1510	286	-331		-643	-1340	-1820
28	223	.00	.00	-55	-762	352	553	-549		-647	-1620	-1020
29	43	17	.00	-145	---	-1190	243	-17		-903	-1450	-1120
30	113	101	.00	-101	---	-803	-74	-120		105	-1330	-702
31	295	---	.00	179	---	1680	---	-385		-480	-1690	---
TOTAL	7054	3886.00	2576.00	3842	10232	-20060	12722.00	2191.00		-19161	---	-31088
MEAN	228	130	83.1	124	365	-647	424	70.7		-618	---	-1036
MAX	434	370	456	577	1340	1680	3130	1230		105	---	350
MIN	22	.00	.00	-590	-796	-2620	-1140	-799		-1130	---	-1820
AC-FT	13990	7710	5110	7620	20300	-39790	25230	4350		-38010	---	-61660

CAL YR 1988 TOTAL 88830.20 MEAN 243 MAX 2230 MIN .00 AC-FT 176200

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02276870 ST. LUCIE CANAL AT LAKE OKEECHOBEE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.80	15.11	14.92	14.50	14.18	13.43	13.23	13.02	11.95	11.44	11.22	11.45
2	15.83	15.03	14.82	14.50	14.13	13.45	13.12	13.07	11.92	11.44	11.22	11.47
3	15.91	14.97	14.83	14.55	14.12	13.58	13.13	12.97	11.89	11.45	11.25	11.53
4	15.88	15.27	14.84	14.46	14.12	13.61	13.08	12.89	11.86	11.45	11.20	11.58
5	15.78	15.42	14.82	14.38	14.09	13.61	13.10	12.86	11.82	11.46	11.17	11.62
6	15.67	15.37	14.79	14.38	14.08	13.64	13.18	12.87	11.83	11.45	11.18	11.67
7	15.73	15.27	14.77	14.36	14.08	13.69	13.21	12.87	11.92	11.40	11.23	11.67
8	15.69	15.23	14.75	14.34	14.08	13.71	13.13	12.70	11.83	11.40	11.19	11.69
9	15.67	15.20	14.75	14.32	13.95	13.81	13.04	12.64	11.80	11.39	11.23	11.67
10	15.67	15.22	14.73	14.30	13.93	13.77	13.01	12.73	11.77	11.37	11.23	11.67
11	15.67	15.21	14.75	14.27	13.94	13.70	12.93	12.69	11.72	11.38	11.16	11.66
12	15.64	15.18	14.80	14.26	13.90	13.70	12.88	12.58	11.69	11.36	11.17	11.67
13	15.54	15.18	14.82	14.27	13.84	13.72	12.86	12.56	11.65	11.36	11.17	11.67
14	15.45	15.12	14.74	14.22	13.83	13.69	12.82	12.55	11.61	11.33	11.28	11.65
15	15.46	15.10	14.71	14.23	13.79	13.66	12.94	12.57	11.53	11.27	11.30	11.65
16	15.45	15.10	14.73	14.24	13.78	13.63	12.95	12.66	11.46	11.27	11.35	11.67
17	15.43	15.09	14.84	14.21	13.75	13.61	12.90	12.70	11.44	11.28	11.35	11.70
18	15.43	15.03	14.86	14.19	13.73	13.59	12.93	12.50	11.41	11.24	11.32	11.73
19	15.42	15.00	14.60	14.13	13.69	13.58	12.98	12.43	11.40	11.25	11.30	11.76
20	15.40	15.03	14.60	14.17	13.68	13.53	13.08	12.49	11.41	11.32	11.31	11.76
21	15.41	15.02	14.60	14.03	13.68	13.53	13.10	12.47	11.38	11.30	11.41	11.92
22	15.40	14.92	14.59	14.24	13.77	13.53	13.02	12.46	11.36	11.25	11.43	11.81
23	15.36	15.35	14.59	14.30	13.95	13.50	13.01	12.45	11.36	11.22	11.42	11.84
24	15.35	15.08	14.58	14.18	13.70	13.53	13.04	12.45	11.42	11.17	11.45	11.88
25	15.29	14.97	14.58	14.16	13.51	13.52	13.02	12.40	11.36	11.21	11.45	12.11
26	15.23	14.94	14.55	14.17	13.46	13.46	13.03	12.31	11.32	11.27	11.48	12.16
27	15.21	14.98	14.53	14.21	13.46	13.40	13.01	12.24	11.25	11.29	11.47	12.15
28	15.17	15.02	14.54	14.20	13.43	13.33	12.97	12.16	11.15	11.32	11.45	12.13
29	15.15	14.91	14.53	14.20	---	13.29	12.95	12.01	11.28	11.30	11.41	12.13
30	15.14	14.94	14.52	14.23	---	13.32	12.98	11.94	11.39	11.25	11.45	12.15
31	15.12	---	14.50	14.22	---	13.38	---	11.94	---	11.25	11.43	---
MEAN	15.50	15.11	14.69	14.27	13.84	13.56	13.02	12.55	11.57	11.33	11.31	11.77
MAX	15.91	15.42	14.92	14.55	14.18	13.81	13.23	13.07	11.95	11.46	11.48	12.16
MIN	15.12	14.91	14.50	14.03	13.43	13.29	12.82	11.94	11.15	11.17	11.16	11.45

CAL YR 1988 MEAN 15.64 MAX 16.58 MIN 14.50
WTR YR 1989 MEAN 13.21 MAX 15.91 MIN 11.15

02276871 ST. LUCIE CANAL BELOW S-308 AT PORT MAYACA, FL

LOCATION.--Lat 26°59'00", long 80°37'00", in sec.22, T.40 S., R.37 E., Martin County, Hydrologic Unit 03090202, on right bank in control house downstream of structure 308 at Lake Okeechobee, 0.1 mi west of U.S. Highway 441, and 24 mi upstream from control structure 80.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily stage: July 29 to Aug. 6. Water level affected by regulation of control structure 308 gates and lock at Lake Okeechobee, and structure 80.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 18.13 ft Mar. 1, 1983; minimum gage height, 8.95 ft Jan. 14, 17, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 14.84 ft Nov. 4; minimum gage height, 10.73 ft June 28.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.00	14.07	13.97	14.22	14.16	13.44	13.26	13.13	11.94	11.44	11.23	11.47
2	14.17	14.01	13.93	14.20	14.12	13.46	13.07	13.24	11.91	11.45	11.21	11.50
3	13.94	13.96	14.17	14.03	14.11	13.59	13.07	13.20	11.89	11.45	11.23	11.57
4	14.09	14.45	14.06	14.00	14.11	13.65	13.04	12.90	11.85	11.46	11.18	11.62
5	14.14	13.98	13.98	14.04	14.08	13.64	13.07	12.86	11.82	11.49	11.11	11.65
6	14.08	14.40	14.28	14.12	14.06	13.65	13.21	12.87	11.82	11.48	11.10	11.70
7	14.03	13.93	14.30	14.24	14.06	13.70	13.29	12.87	11.91	11.41	11.19	11.69
8	14.20	14.23	14.20	14.22	14.06	13.72	13.16	12.68	11.82	11.42	11.19	11.71
9	14.26	14.09	14.00	14.19	13.93	13.82	13.00	12.63	11.80	11.40	11.24	11.69
10	13.99	14.10	13.90	14.15	13.92	13.78	12.94	12.73	11.76	11.38	11.27	11.69
11	14.07	14.18	14.02	14.15	13.94	13.70	12.83	12.69	11.72	11.38	11.21	11.67
12	14.20	14.21	14.23	14.21	13.90	13.72	12.83	12.57	11.69	11.37	11.20	11.68
13	14.07	14.19	14.18	14.23	13.84	13.73	12.81	12.55	11.65	11.36	11.22	11.67
14	14.16	14.02	14.10	14.21	13.83	13.70	12.82	12.53	11.60	11.34	11.33	11.66
15	14.23	14.21	14.19	14.21	13.80	13.67	12.96	12.57	11.53	11.28	11.38	11.67
16	14.16	14.25	14.14	14.17	13.78	13.65	12.90	12.64	11.46	11.29	11.39	11.69
17	14.11	14.05	14.08	14.17	13.75	13.61	12.79	12.68	11.44	11.29	11.39	11.73
18	14.23	14.09	14.00	14.16	13.72	13.60	13.03	12.47	11.41	11.25	11.37	11.76
19	14.07	14.23	14.27	14.11	13.67	13.59	13.02	12.43	11.39	11.28	11.35	11.78
20	14.14	14.25	14.19	14.16	13.66	13.54	13.07	12.48	11.40	11.34	11.35	11.78
21	14.12	14.11	14.03	14.06	13.69	13.54	13.12	12.47	11.37	11.33	11.46	11.92
22	14.14	14.09	14.22	14.27	13.76	13.53	12.97	12.45	11.36	11.26	11.64	11.85
23	14.23	14.03	14.29	14.33	13.94	13.53	12.97	12.44	11.36	11.23	12.22	11.86
24	13.96	14.09	14.26	14.19	13.69	13.54	13.02	12.44	11.41	11.19	12.10	11.91
25	14.17	14.04	14.21	14.15	13.50	13.51	12.99	12.39	11.35	11.22	11.66	12.14
26	14.27	14.25	14.20	14.17	13.47	13.45	12.98	12.30	11.32	11.28	11.51	12.19
27	14.18	14.31	13.97	14.22	13.47	13.37	12.98	12.23	11.24	11.29	11.49	12.19
28	14.22	14.20	14.06	14.20	13.44	13.32	12.89	12.15	11.15	11.33	11.48	12.15
29	14.16	14.14	14.05	14.20	---	13.30	12.88	12.00	11.28	11.32	11.44	12.15
30	13.98	14.08	14.20	14.23	---	13.33	13.02	11.93	11.38	11.26	11.47	12.17
31	13.98	---	14.15	14.21	---	13.33	---	11.93	---	11.26	11.47	---
MEAN	14.12	14.14	14.12	14.17	13.84	13.57	13.00	12.56	11.57	11.34	11.39	11.80
MAX	14.27	14.45	14.30	14.33	14.16	13.82	13.29	13.24	11.94	11.49	12.22	12.19
MIN	13.94	13.93	13.90	14.00	13.44	13.30	12.79	11.93	11.15	11.19	11.10	11.47

CAL YR 1988 MEAN 14.27 MAX 15.01 MIN 13.80
WTR YR 1989 MEAN 12.97 MAX 14.45 MIN 11.10

02277600 LOXAHATCHEE RIVER NEAR JUPITER, FL

LOCATION.--Lat 26°56'20", long 80°10'31", in NE¼ sec.6, T.41 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, near left bank, 0.2 mi downstream from State Highway 706, 1.3 mi upstream from Florida's Turnpike and 5.2 mi west of Jupiter.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge and gage height: Dec. 14-20. Records good.

AVERAGE DISCHARGE.--18 years, 66.0 ft^3/s, 47,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,040 ft^3/s Nov. 17, 1982; maximum gage height, 14.80 ft Sept. 25, 1983; no flow on May 4-7, 1974, minimum gage height, 7.70 ft June 21, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 145 ft^3/s Aug. 14; maximum gage height, 11.95 ft Aug. 14; minimum daily discharge, 1.2 ft^3/s Feb. 20, 25, 26; minimum gage height, 10.01 ft June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	35	21	11	2.8	1.9	11	20	4.7	31	38	64
2	56	34	21	11	2.6	2.5	11	18	3.8	29	38	87
3	53	34	20	9.3	2.4	4.2	10	17	3.0	44	34	99
4	41	37	20	6.0	2.2	4.6	9.8	17	2.3	44	31	103
5	60	38	19	5.1	2.2	4.4	11	16	1.8	41	29	101
6	62	38	19	4.8	1.9	4.8	13	16	2.2	38	27	85
7	62	37	19	4.6	1.6	5.7	12	16	7.5	36	26	55
8	59	36	19	4.6	1.4	6.4	10	20	10	35	27	136
9	57	35	18	5.4	1.5	6.4	9.2	31	13	33	35	115
10	55	34	17	10	1.8	6.4	9.0	31	13	32	99	84
11	52	34	16	10	2.0	6.5	8.4	30	13	31	94	136
12	50	33	18	10	1.9	6.7	8.3	30	12	29	110	62
13	49	33	18	9.4	1.9	6.9	9.9	29	11	29	114	41
14	48	30	17	5.5	2.0	7.0	14	28	9.8	28	145	37
15	45	25	16	4.3	1.9	8.1	15	25	8.8	27	104	36
16	44	24	14	3.9	1.8	10	24	20	7.1	31	82	35
17	44	23	11	3.5	1.7	22	36	20	5.7	36	74	34
18	41	23	9.5	3.4	1.6	26	39	30	4.2	36	72	33
19	29	24	8.5	3.2	1.6	25	38	31	3.3	48	83	39
20	29	23	7.5	3.5	1.2	25	37	30	2.9	46	86	110
21	37	23	11	4.2	1.4	24	38	29	3.6	42	85	56
22	38	23	17	4.2	1.5	20	38	23	15	31	85	38
23	37	21	16	4.2	1.6	16	37	14	17	29	86	49
24	36	21	15	4.3	1.4	23	35	12	15	29	87	41
25	36	21	14	6.3	1.2	23	34	10	15	35	72	41
26	36	20	13	4.5	1.2	22	33	9.3	15	32	68	39
27	36	22	13	2.9	1.3	22	34	8.0	15	29	66	96
28	36	23	13	6.4	1.4	25	35	6.9	14	27	63	78
29	35	23	13	6.4	---	24	35	6.1	20	27	61	110
30	35	22	13	7.1	---	19	33	5.3	29	29	52	61
31	36	---	12	3.9	---	11	---	5.4	---	34	62	---
TOTAL	1390	849	478.5	182.9	49.0	419.5	687.6	604.0	297.7	1048	2135	2101
MEAN	44.8	28.3	15.4	5.90	1.75	13.5	22.9	19.5	9.92	33.8	68.9	70.0
MAX	62	38	21	11	2.8	26	39	31	29	48	145	136
MIN	29	20	7.5	2.9	1.2	1.9	8.3	5.3	1.8	27	26	33
AC-FT	2760	1680	949	363	97	832	1360	1200	590	2080	4230	4170

CAL YR 1988 TOTAL 24096.3 MEAN 65.8 MAX 271 MIN 6.0 AC-FT 47790
WTR YR 1989 TOTAL 10242.2 MEAN 28.1 MAX 145 MIN 1.2 AC-FT 20320

02277600 LOXAHATCHEE RIVER NEAR JUPITER, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.13	10.95	10.81	10.74	10.57	10.50	10.65	10.74	10.25	10.88	11.00	11.25
2	11.13	10.93	10.80	10.74	10.56	10.53	10.64	10.70	10.21	10.87	10.99	11.45
3	11.10	10.93	10.79	10.70	10.55	10.62	10.63	10.68	10.15	11.05	10.95	11.54
4	11.03	10.97	10.79	10.61	10.53	10.64	10.61	10.67	10.11	11.05	10.91	11.57
5	11.24	10.99	10.79	10.58	10.54	10.62	10.64	10.66	10.06	11.02	10.88	11.55
6	11.26	10.99	10.78	10.57	10.52	10.62	10.68	10.66	10.08	10.99	10.84	11.42
7	11.26	10.98	10.79	10.57	10.49	10.66	10.65	10.64	10.34	10.97	10.83	11.16
8	11.23	10.96	10.79	10.57	10.47	10.68	10.62	10.70	10.41	10.96	10.85	11.77
9	11.20	10.95	10.78	10.60	10.49	10.67	10.59	10.86	10.49	10.94	10.95	11.62
10	11.18	10.95	10.76	10.76	10.52	10.66	10.57	10.87	10.49	10.92	11.54	11.42
11	11.16	10.95	10.75	10.77	10.53	10.66	10.56	10.85	10.49	10.90	11.51	11.78
12	11.13	10.94	10.78	10.77	10.53	10.66	10.56	10.85	10.47	10.89	11.62	11.21
13	11.12	10.93	10.79	10.75	10.53	10.65	10.60	10.83	10.45	10.89	11.64	11.01
14	11.11	10.90	10.78	10.63	10.54	10.65	10.68	10.81	10.43	10.87	11.84	10.96
15	11.08	10.83	10.76	10.59	10.54	10.68	10.69	10.76	10.41	10.86	11.58	10.94
16	11.07	10.82	10.72	10.57	10.53	10.72	10.84	10.69	10.37	10.91	11.41	10.93
17	11.07	10.81	10.66	10.56	10.53	10.95	11.01	10.67	10.32	10.98	11.34	10.91
18	11.04	10.81	10.63	10.55	10.52	10.99	11.04	10.82	10.27	10.98	11.33	10.90
19	10.88	10.81	10.61	10.55	10.51	10.98	11.03	10.83	10.22	11.11	11.42	10.98
20	10.87	10.81	10.59	10.57	10.48	10.96	11.01	10.82	10.21	11.09	11.44	11.57
21	10.98	10.81	10.67	10.62	10.51	10.94	11.03	10.80	10.24	11.04	11.43	11.14
22	10.98	10.81	10.80	10.62	10.52	10.86	11.01	10.70	10.58	10.90	11.4	10.95
23	10.97	10.79	10.79	10.63	10.51	10.80	11.00	10.55	10.62	10.88	11.44	11.08
24	10.96	10.78	10.78	10.63	10.49	10.91	10.98	10.49	10.59	10.88	11.45	10.99
25	10.97	10.78	10.76	10.71	10.47	10.90	10.97	10.45	10.59	10.96	11.33	11.00
26	10.97	10.78	10.75	10.63	10.46	10.88	10.95	10.42	10.60	10.92	11.29	10.97
27	10.97	10.80	10.75	10.56	10.46	10.87	10.96	10.39	10.60	10.88	11.27	11.46
28	10.96	10.82	10.76	10.73	10.46	10.91	10.97	10.35	10.60	10.85	11.25	11.33
29	10.94	10.83	10.76	10.73	---	10.89	10.96	10.32	10.70	10.85	11.23	11.58
30	10.94	10.82	10.76	10.75	---	10.80	10.93	10.29	10.84	10.88	11.14	11.19
31	10.95	---	10.75	10.62	---	10.66	---	10.28	---	10.95	11.24	---
MEAN	11.06	10.87	10.75	10.64	10.51	10.76	10.80	10.65	10.41	10.94	11.27	11.25
MAX	11.26	10.99	10.81	10.77	10.57	10.99	11.04	10.87	10.84	11 11	11.84	11.78
MIN	10.87	10.78	10.59	10.55	10.46	10.50	10.56	10.28	10.06	10.85	10.83	10.90

CAL YR 1988 MEAN 10.82 MAX 12.47 MIN 8.51
WTR YR 1989 MEAN 10.83 MAX 11.84 MIN 10.06

02277738 INTRACOASTAL WATERWAY AT SR 706 AT JUPITER, FL

LOCATION.--Lat 26°56'02", long 80°05'03", in NE¼ sec.6, T.41 S., R.43 E., Palm Beach County, Hydrologic Unit 03090202, on east fender of bridge on State Road 706, 0.2 mi west of U.S. Highway 1, and 1.0 mi south of Loxahatchee River at Jupiter, Fl.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1980 to May 1981, September 1988 to current year. Records of gage heights prior to October 1988 are available in the files of the Geological Survey.

GAGE.--Water-stage recorder and electromagnetic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929. June 1980 to May 1981 water-stage recorder only.

REMARKS.--Tidal stage. The stage record published is the maximum and minimum tide event for each calendar day. Discharge could not be determined for the 1989 water year at time of publication.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 1.87 ft Mar. 10; minimum -2.85 ft Apr. 9.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.05	---	.08	---	.00	-.14	---		---	1.01	.07	.30
2	.75	---	-.01	---	-.03	-.03	---		---	1.03	.09	.35
3	---	---	.19	---	-.08	.43	---		---	---	.48	.31
4	---	---	.29	---	.05	.36	---		---	---	.59	.41
5	---	---	.45	---	.40	.34	---		---	.78	.57	.42
6	---	---	.61	---	.49	.34	---		---	.43	.32	.56
7	---	---	.59	.48	.60	.67	---		---	.18	.24	.55
8	---	---	.63	.56	.34	1.10	---		---	.02	.20	.68
9	---	---	.65	.46	.66	1.70	.31		---	-.20	-.05	.62
10	---	---	.75	.57	.73	1.87	.06		-.57	-.34	.10	1.12
11	---	---	.91	.50	.97	1.80	-.01		-.68	-.17	.43	.94
12	---	---	1.07	.58	.52	1.52	.25		-.47	-.06	.50	1.08
13	---	---	1.32	.34	.55	1.06	.43		-.35	-.15	.60	1.07
14	---	---	.97	.29	.07	.67	.31		-.33	-.03	.74	1.01
15	---	.68	.62	.24	-.26	.42	.32		-.37	-.06	.77	1.06
16	---	.67	.46	.10	-.18	.21	.12		-.29	-.11	.84	1.08
17	---	.42	.69	.23	.05	.11	.13		-.23	.09	.68	.94
18	---	.31	.70	.16	.56	.16	.18		.17	.25	.54	.96
19	---	.49	---	.35	.85	.26	.32		.35	.24	.56	1.09
20	---	.70	---	.28	1.00	.30	.28		.34	.08	.87	1.13
21	---	.59	---	.48	.70	.17	.64		.17	.38	.53	1.27
22	---	.71	---	1.06	.32	.08	.87		.14	.34	.38	.83
23	---	.70	---	.95	.23	.16	.68		.26	.04	.17	.59
24	---	.74	---	1.27	.18	.39	.48		.25	.19	.09	.49
25	---	1.03	---	.96	.23	.49	.25		.17	.30	.10	.56
26	---	.86	---	.44	.28	.31	.03		.27	.52	.29	.69
27	---	.33	---	.06	.23	---	.01		.33	.47	.54	.69
28	---	-.07	---	.17	.17	---	---		.31	.46	.54	.76
29	---	.18	---	-.04	---	---	---		.49	.33	.52	1.02
30	---	.23	---	.05	---	---	---		.65	.33	.49	.95
31	---	---	---	-.08	---	---	---		---	.12	.36	---
MEAN	---	---	---	---	.34	---	---		---	---	.42	.78
MAX	---	---	---	---	1.00	---	---		---	---	.87	1.27
MIN	---	---	---	---	-.26	---	---		---	---	-.05	.30

02277738 INTRACOASTAL WATERWAY AT SR 706 AT JUPITER, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-1.43	---	-1.64	---	-2.27	-2.14	---		---	-2.17	-2.64	-1.93
2	-1.47	---	-1.68	---	-2.65	-1.96	---		---	-2.01	-2.51	-1.92
3	---	---	-1.77	---	-2.65	-1.98	---		---	---	-2.22	-1.90
4	---	---	-1.88	---	-2.69	-2.27	---		---	---	-1.75	-1.77
5	---	---	-1.88	---	-2.56	-2.33	---		---	-2.09	-1.66	-1.76
6	---	---	-2.00	---	-2.60	-2.47	---		---	-2.10	-1.78	-1.53
7	---	---	-2.06	-2.38	-2.46	-2.41	---		---	-2.27	-1.77	-1.43
8	---	---	-2.18	-2.50	-2.54	-2.09	---		---	-2.16	-1.81	-1.29
9	---	---	-2.28	-2.63	-2.29	-1.44	-2.85		---	-2.22	-1.99	-1.38
10	---	---	-2.42	-2.52	-1.88	-.62	-2.71		-2.65	-2.29	-1.99	-1.17
11	---	---	-2.11	-2.34	-2.12	-.88	-2.27		-2.60	-2.23	-1.82	-1.40
12	---	---	-1.95	-2.05	-2.03	-1.26	-1.70		-2.46	-2.16	-1.80	-1.46
13	---	---	-1.53	-2.36	-2.24	-1.64	-1.77		-2.43	-2.28	-1.83	-1.66
14	---	---	-1.46	-2.24	-2.60	-1.75	-1.65		-2.54	-2.40	-1.91	-1.69
15	---	-1.79	-1.83	-2.46	-2.55	-1.92	-1.67		-2.64	-2.40	-2.08	-1.76
16	---	-1.67	-1.69	-2.48	-2.39	-1.96	-1.87		-2.69	-2.66	-2.05	-1.87
17	---	-1.92	-1.85	-2.52	-2.40	-1.91	-2.02		-2.81	-2.50	-2.24	-2.16
18	---	-1.95	-1.96	-2.51	-2.07	-1.95	-2.03		-2.65	-2.51	-2.26	-2.16
19	---	-2.00	---	-2.53	-1.65	-1.96	-2.12		-2.48	-2.64	-2.12	-1.89
20	---	-2.39	---	-2.47	-1.39	-1.93	-2.16		-2.49	-2.49	-1.76	-1.73
21	---	-2.41	---	-2.51	-1.63	-2.04	-2.02		-2.60	-2.30	-2.18	-1.35
22	---	-2.54	---	-1.49	-1.95	-2.18	-1.64		-2.49	-2.38	-2.39	-1.42
23	---	-2.44	---	-1.64	-2.01	-2.12	-1.89		-2.34	-2.50	-2.41	-1.76
24	---	-2.61	---	-1.04	-1.90	-2.02	-2.17		-2.24	-2.34	-2.53	-1.77
25	---	-1.91	---	-1.18	-1.79	-1.88	-2.36		-2.22	-2.39	-2.45	-1.68
26	---	-1.91	---	-1.73	-1.77	-1.87	-2.32		-2.23	-2.21	-2.36	-1.52
27	---	-2.17	---	-1.86	-1.73	---	-2.22		-2.29	-2.23	-2.05	-1.55
28	---	-2.34	---	-1.73	-2.14	---	---		-2.45	-2.35	-2.08	-1.48
29	---	-1.99	---	-1.99	---	---	---		-2.49	-2.50	-2.05	-1.22
30	---	-1.68	---	-2.06	---	---	---		-2.45	-2.49	-1.98	-1.29
31	---	---	---	-2.03	---	---	---		---	-2.63	-2.02	---
MEAN	---	---	---	---	-2.18	---	---		---	---	-2.08	-1.63
MAX	---	---	---	---	-1.39	---	---		---	---	-1.66	-1.17
MIN	---	---	---	---	-2.69	---	---		---	---	-2.64	-2.16

02277747 INTRACOASTAL WATERWAY AT SR 707 AT JUPITER, FL

LOCATION.--Lat 26°57'07", long 80°04'44", in NE¼ sec. 31, T.40 S., R.43 E., Palm Beach County, Hydrologic Unit 03090202, on east fender of draw bridge on State Highway 707, 1,900 ft north of Jupiter Lighthouse, 0.4 mi north of the Loxahatchee River at Jupiter, and 0.4 mi east of U.S. Highway 1.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1980 to May 1981, September 1988 to current year (gage heights). Records of gage heights June 1980 to May 1981 available in the files of the Geological Survey.

GAGE.--Water-stage recorder and electromagnetic velocity meter. June 1980 to May 1981, tidal stage recorder at site 300 ft southeast of present site. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily tidal low gage heights: Jan. 20 to Feb. 3, 6-9, 11, 13-18, 22-24, 27, Mar. 12, 14, 17, 23-26, 28 to Apr. 26. The stage record published is the maximum and minimum tide event for each calendar day. Discharge record not computed for the 1989 water year.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.03 ft Mar. 11; minimum gage height, -2.69 ft Jan. 6.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL HIGH (DAILY) VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.09	2.16	1.23	---	1.01	.96	1.08	1.08	1.57	2.05	1.12	1.39
2	1.79	2.05	1.13	---	.99	1.05	1.29	1.25	1.46	2.04	1.15	1.42
3	1.66	1.76	1.31	---	.91	1.51	1.31	1.60	1.35	1.92	1.52	1.39
4	1.57	1.65	1.38	---	1.11	1.47	1.24	1.69	1.45	1.81	1.68	1.43
5	1.85	1.70	1.51	---	1.44	1.42	1.38	1.71	1.43	1.47	1.61	1.45
6	2.17	1.60	1.70	.58	1.52	1.42	1.61	1.67	1.41	1.24	1.40	1.64
7	2.35	1.42	1.65	.99	1.65	1.77	1.50	1.70	1.40	1.17	1.25	1.65
8	2.63	1.38	1.66	1.01	1.41	1.96	1.36	1.69	1.10	1.07	---	1.80
9	2.64	1.41	1.67	.90	1.81	2.40	1.30	1.77	.80	.90	---	1.73
10	2.57	1.41	1.78	1.59	1.85	2.89	1.09	1.50	.50	.74	---	2.23
11	2.56	1.44	2.00	1.57	1.94	3.03	1.08	1.41	.38	.90	---	2.00
12	2.37	1.58	2.15	1.62	1.61	2.62	1.39	1.28	.61	1.00	---	2.17
13	2.27	1.67	2.53	1.41	1.64	2.19	1.58	1.42	.71	.88	---	2.13
14	2.30	1.78	2.07	1.36	1.13	1.81	1.46	.96	.73	1.04	---	2.06
15	2.42	1.74	1.69	1.34	.82	1.55	1.41	1.06	.66	.92	---	2.10
16	2.20	1.72	1.56	1.21	.89	1.34	1.22	1.22	.73	1.03	1.06	2.12
17	2.05	1.46	1.83	1.29	1.11	1.25	1.23	1.27	.81	1.28	1.50	1.97
18	1.97	1.36	1.79	1.25	1.65	1.26	1.26	1.31	1.21	1.29	1.58	2.01
19	1.91	1.54	1.75	1.48	1.93	1.41	1.41	1.36	1.36	1.14	1.68	2.15
20	2.15	1.74	1.79	1.30	2.12	1.40	1.39	1.59	1.37	1.43	1.80	2.21
21	2.18	1.63	1.50	1.63	1.79	1.27	1.79	1.44	1.22	1.37	1.85	2.37
22	2.44	1.70	1.41	2.14	1.42	1.15	1.97	1.36	1.23	1.30	1.73	1.88
23	2.49	1.64	1.48	2.09	1.35	1.26	1.82	1.26	1.31	1.09	1.76	1.64
24	2.53	1.80	1.38	2.37	1.27	1.50	1.56	1.18	1.34	1.26	1.88	1.57
25	2.49	2.07	---	2.00	1.36	1.59	1.33	1.04	1.26	1.35	1.46	1.68
26	2.44	1.90	---	1.47	1.42	1.49	1.09	1.13	1.33	1.55	1.25	1.77
27	2.25	1.31	---	1.10	1.35	1.33	1.09	1.01	1.41	1.49	1.17	1.77
28	1.92	.98	---	1.23	1.29	1.09	1.16	1.10	1.36	1.45	1.57	1.84
29	1.85	1.27	---	1.00	---	.97	1.26	1.31	1.52	1.36	1.62	2.08
30	1.82	1.30	---	1.08	---	1.01	1.25	1.69	1.69	1.38	1.58	1.96
31	2.06	---	---	.94	---	1.04	---	1.56	---	1.18	1.56	---
MEAN	2.19	1.61	---	---	1.42	1.56	1.36	1.37	1.16	1.29	---	1.85
MAX	2.64	2.16	---	---	2.12	3.03	1.97	1.77	1.69	2.05	---	2.37
MIN	1.57	.98	---	---	.82	.96	1.08	.96	.38	.74	---	1.39

02277747 INTRACOASTAL WATERWAY AT SR 707 AT JUPITER, FL

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL LOW (DAILY) VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-.21	.22	-.43	---	-1.30	-.91	-1.00	-1.07	-1.33	-.96	-1.46	-.74
2	-.24	.32	-.45	---	-1.40	-.70	-1.30	-1.30	-1.59	-.80	-1.31	-.72
3	-.33	-.06	-.53	---	-1.00	-.73	-1.30	-1.35	-1.74	-.81	-1.00	-.71
4	-.47	-.14	-.55	---	-.97	-1.00	-1.30	-1.38	-1.64	-.89	-.52	-.60
5	-.14	-.20	-.67	---	-1.33	-1.08	-1.40	-1.42	-1.44	-.91	-.43	-.61
6	.17	-.43	-.67	-2.69	-1.00	-1.23	-1.40	-1.46	-1.27	-1.08	-.59	-.32
7	.44	-.78	-.78	-1.76	-.70	-.94	-1.30	-1.35	-1.26	-.98	-.63	-.26
8	.68	-.96	-.96	-1.85	-.70	-.85	-1.00	-1.03	-1.37	-.92	---	-.09
9	.72	-1.10	-1.06	-2.01	-1.04	-.16	-.95	-1.01	-1.44	-1.01	---	-.16
10	.47	-1.10	-1.19	-1.89	-.64	.63	-.70	-.76	-1.46	-1.12	---	.01
11	.45	-1.22	-.92	-.98	-.45	.43	-.70	-.76	-1.43	-1.05	---	-.17
12	.10	-1.06	-.72	-.68	-.79	-.10	-.65	-.63	-1.28	-.99	---	-.23
13	-.18	-.80	-.29	-1.01	-.80	-.38	-.50	-.65	-1.27	-1.11	---	-.45
14	.01	-.69	-.23	-.91	-.90	-.40	-.80	-.91	-1.38	-1.23	---	-.46
15	.25	-.57	-.58	-1.11	-.80	-.69	-.80	-.89	-1.48	-1.26	---	-.54
16	.16	-.42	-.52	-1.10	-.95	-.65	-.80	-.87	-1.54	-1.52	-.78	-.67
17	-.04	-.69	-.62	-1.15	-.70	-.85	-.85	-.92	-1.64	-1.31	-.76	-.94
18	-.16	-.72	-.74	-1.38	-.90	-.70	-1.05	-1.12	-1.49	-1.36	-.56	-.95
19	-.24	-.70	-.84	-1.42	-.36	-.71	-1.05	-1.12	-1.30	-1.45	-.72	-.69
20	-.10	-.78	-.94	-.40	-.14	-.68	-.80	-.94	-1.32	-1.32	-.86	-.52
21	.02	-1.18	-1.23	-.45	-.38	-.61	-.90	-.99	-1.41	-1.12	-.84	-.11
22	.01	-1.34	-1.49	-.40	-.75	-.91	-1.00	-1.15	-1.30	-1.18	-1.05	-.21
23	.04	-1.26	-1.23	-.35	-1.20	-.65	-1.10	-1.36	-1.14	-1.31	-.92	-.56
24	-.22	-1.38	-1.34	-.20	-.60	-1.00	-1.25	-1.35	-1.04	-1.14	-.96	-.57
25	-.51	-.69	---	-.25	-.57	-1.30	-1.10	-1.23	-1.02	-1.22	-1.21	-.48
26	-.49	-.69	---	-.40	-.52	-.80	-1.20	-1.23	-1.02	-1.03	-1.38	-.33
27	-.58	-.95	---	-.70	-.15	-.90	-1.03	-1.09	-1.08	-1.03	-1.26	-.35
28	-.72	-1.15	---	-.80	-.88	-1.50	-.78	-1.03	-1.26	-1.14	-1.19	-.23
29	-.67	-.79	---	-1.25	---	-1.10	-.86	-.96	-1.31	-1.32	-.87	.00
30	-.43	-.50	---	-1.30	---	-.90	-.96	-.79	-1.27	-1.33	-.82	-.09
31	-.09	---	---	-1.15	---	-.90	---	-1.12	---	-1.45	-.77	---
MEAN	-.07	-.73	---	---	-.78	-.72	-.99	-1.07	-1.35	-1.14	---	-.43
MAX	.72	.32	---	---	-.14	.63	-.50	-.63	-1.02	-.80	---	.01
MIN	-.72	-1.38	---	---	-1.40	-1.50	-1.40	-1.46	-1.74	-1.52	---	-.95

02278000 WEST PALM BEACH CANAL AT S352, AT CANAL POINT, FL
(Formerly published as West Palm Beach Canal at HGS-5, at Canal Point)

LOCATION.--Lat 26°51'05", long 80°37'55", in NE¼ sec.33, T.41 S., R.37 E., Palm Beach County, Hydrologic Unit 03090202, on right bank in gate structure S352 at Lake Okeechobee, 200 ft upstream from bridge on U.S. Highway 441 at Canal Point.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to current year.

GAGE.--Water-stage recorder, electromagnetic velocity meter, and gate-opening indicator. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Jan. 14, 1954, nonrecording gage at site 550 ft downstream at same datum. Jan. 14, 1954 to Feb. 24, 1956, water-stage recorder, and Feb. 25, 1956, to Sept. 30, 1967, water-stage and deflection vane recorders all at present site and datum. May 1940, auxiliary water-stage recorder at old lock, 700 ft downstream from gate structure. August, 1986 electromagnetic velocity meter.

REMARKS.--No estimated daily discharge or stage. Records fair. Flow regulated at station by operation of gates. Flow occasionally reversed after periods of considerable rainfall because of downstream natural drainage and pumpage from agricultural lands in the Everglades (negative figures indicate flow reversed). Discharge computed from relations between discharge, head, and gate openings at gate structure S352 or from continuous velocity record obtained from recording electromagnetic velocity meter.

COOPERATION.--Gate record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--49 years (water years 1940-89), 153 ft^3/s, 110,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,610 ft^3/s Oct. 2, 1959; maximum gage height, 18.99 ft Mar. 10, 1983; maximum daily reverse flow, 1,760 ft^3/s June 15, 1942; minimum gage height observed, 8.48 ft June 15-17, 1952, at former site.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,100 ft^3/s Feb. 20; maximum gage height, 16.13 ft Oct. 3; no flow for many days; minimum gage height, 10.57 ft Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	72	332	393	454	493	444	.00	718	.00	.00	.00
2	.00	113	341	388	506	.00	415	.00	708	.00	.00	.00
3	.00	92	473	324	484	.00	416	.00	702	.00	.00	.00
4	.00	53	382	237	508	.00	412	.00	686	.00	.00	.00
5	.00	48	385	238	286	.00	249	276	664	.00	.00	.00
6	.00	20	372	173	217	.00	.00	442	672	.00	.00	.00
7	.00	54	358	98	203	.00	.00	444	670	.00	350	.00
8	.00	63	326	78	195	.00	.00	556	586	.00	574	.00
9	.00	130	180	43	365	.00	.00	744	594	.00	566	.00
10	.00	156	240	20	373	.00	521	894	608	362	570	.00
11	.00	183	241	15	371	.00	681	816	578	576	544	.00
12	.00	175	134	122	369	.00	626	712	598	586	534	.00
13	.00	167	58	203	336	223	506	678	626	564	520	.00
14	.00	146	203	125	603	332	328	640	604	566	204	.00
15	.00	227	207	131	823	357	.00	416	586	552	.00	434
16	.00	303	301	159	857	337	.00	.00	584	568	.00	212
17	.00	315	185	109	949	314	.00	246	586	562	.00	.00
18	.00	307	211	77	1050	275	.00	394	604	570	.00	.00
19	.00	299	138	104	1070	293	.00	404	590	306	.00	.00
20	.00	286	180	46	1100	339	382	432	576	.00	.00	.00
21	.00	194	340	12	851	281	.00	430	542	.00	.00	00
22	.00	66	151	17	212	296	.00	596	524	.00	.00	.00
23	.00	94	81	27	366	314	.00	702	524	.00	.00	.00
24	.00	111	70	2.5	809	266	269	710	528	.00	.00	.00
25	.00	91	82	42	919	265	404	766	522	.00	.00	.00
26	.00	72	103	2.3	48	240	427	748	524	.00	.00	.00
27	.00	64	194	.60	410	253	451	746	522	.00	.00	.00
28	.00	114	379	1.1	878	224	465	744	206	.00	.00	.00
29	.00	377	390	3.5	---	239	452	724	.00	.00	.00	.00
30	.00	454	388	223	---	196	137	702	.00	.00	.00	.00
31	.00	---	378	404	---	188	---	712	---	.00	.00	---
TOTAL	.00	4846	7803	3818.00	15612	5725.00	7585.00	15674.00	16432.00	5212.00	3862.00	646.00
MEAN	.000	162	252	123	558	185	253	506	548	168	125	21.5
MAX	.00	454	473	404	1100	493	681	894	718	586	574	434
MIN	.00	20	58	60	48	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	9610	15480	7570	30970	11360	15040	31090	32590	10340	7660	1280

CAL YR 1988	TOTAL	22498.00	MEAN	61.5	MAX	473	MIN	.00	AC-FT 44620
WTR YR 1989	TOTAL	87215.00	MEAN	239	MAX	1100	MIN	.00	AC-FT 173000

02278000 WEST PALM BEACH CANAL AT S352, AT CANAL POINT, FL
(Formerly published as West Palm Beach Canal at HGS-5, at Canal Point)

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.78	15.07	14.91	14.42	14.09	13.35	13.26	12.91	11.84	11.40	11.18	11.40
2	15.78	15.03	14.94	14.42	14.05	13.39	13.07	12.98	11.80	11.39	11.19	11.39
3	15.81	14.89	14.81	14.46	14.03	13.51	13.05	12.90	11.76	11.40	11.21	11.47
4	15.81	15.15	14.78	14.45	14.03	13.53	12.97	12.81	11.69	11.40	11.21	11.53
5	15.78	15.27	14.77	14.34	13.99	13.53	13.02	12.79	11.64	11.39	11.24	11.59
6	15.75	15.32	14.71	14.30	13.99	13.56	13.16	12.84	11.62	11.37	11.12	11.64
7	15.80	15.23	14.69	14.28	13.99	13.71	13.17	12.94	11.71	11.34	11.09	11.66
8	15.74	15.20	14.68	14.27	13.99	13.85	13.08	12.75	11.59	11.35	11.07	11.69
9	15.65	15.16	14.68	14.26	14.01	13.93	12.98	12.60	11.66	11.35	11.10	11.64
10	15.66	15.16	14.67	14.26	13.97	13.93	12.87	12.66	11.67	11.28	11.14	11.64
11	15.63	15.16	14.65	14.23	13.90	13.78	12.85	12.61	11.60	11.26	11.11	11.63
12	15.61	15.13	14.76	14.19	13.88	13.66	12.85	12.53	11.55	11.24	11.16	11.63
13	15.58	15.13	14.85	14.21	13.75	13.63	12.77	12.45	11.51	11.24	11.15	11.63
14	15.50	15.10	14.70	14.14	13.72	13.59	12.77	12.43	11.45	11.21	11.25	11.60
15	15.46	15.06	14.66	14.16	13.69	13.57	12.89	12.46	11.35	11.16	11.24	11.58
16	15.43	15.03	14.66	14.18	13.67	13.56	12.89	12.54	11.28	11.16	11.30	11.61
17	15.44	15.02	14.83	14.17	13.63	13.52	12.88	12.51	11.29	11.16	11.30	11.66
18	15.39	14.96	14.72	14.14	13.63	13.53	12.95	12.44	11.28	11.13	11.27	11.74
19	15.36	14.92	14.56	14.09	13.60	13.51	12.99	12.40	11.26	11.18	11.26	11.74
20	15.34	14.94	14.52	14.12	13.54	13.44	13.02	12.41	11.27	11.24	11.27	11.78
21	15.36	14.95	14.52	14.07	13.54	13.44	13.08	12.41	11.25	11.23	11.35	11.93
22	15.36	14.79	14.52	14.26	13.71	13.42	13.03	12.33	11.25	11.19	11.37	11.71
23	15.33	15.05	14.52	14.33	13.97	13.39	12.98	12.27	11.27	11.18	11.38	11.80
24	15.29	15.09	14.52	14.21	13.66	13.46	12.94	12.28	11.29	11.16	11.40	11.84
25	15.26	14.94	14.52	14.13	13.43	13.46	12.93	12.27	11.25	11.20	11.39	12.02
26	15.19	14.85	14.51	14.12	13.43	13.36	12.95	12.19	11.27	11.25	11.42	12.09
27	15.14	14.87	14.46	14.16	13.36	13.30	12.94	12.16	11.25	11.23	11.42	12.09
28	15.12	15.00	14.45	14.16	13.30	13.24	12.88	12.10	11.24	11.25	11.41	12.09
29	15.10	14.91	14.45	14.14	---	13.18	12.84	12.02	11.33	11.24	11.40	12.07
30	15.10	14.83	14.44	14.16	---	13.20	12.86	11.93	11.37	11.20	11.39	12.07
31	15.07	---	14.42	14.14	---	13.24	---	11.87	---	11.20	11.37	---
MEAN	15.47	15.04	14.64	14.22	13.77	13.51	12.96	12.48	11.45	11.26	11.26	11.73
MAX	15.81	15.32	14.94	14.46	14.09	13.93	13.26	12.98	11.84	11.40	11.42	12.09
MIN	15.07	14.79	14.42	14.07	13.30	13.18	12.77	11.87	11.24	11.13	11.07	11.39

CAL YR 1988 MEAN 15.59 MAX 16.51 MIN 14.42
WTR YR 1989 MEAN 13.15 MAX 15.81 MIN 11.07

02278002 WEST PALM BEACH CANAL BELOW S352, AT CANAL POINT, FL
(Formerly published as West Palm Beach Canal Below HGS-5, at Canal Point)

LOCATION.--Lat 26°51'45", long 80°37'50", in NE¼ sec.33, T.41 S., R.37 E., Palm Beach County, Hydrologic Unit 03090202, at northwest corner of old lock, 500 ft downstream from bridge on U.S. Highway 441 at Canal Point.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1940 to current year (gage heights). Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 30, 1940 nonrecording gage at same site at datum 1.21 ft lower.

REMARKS.--Water level materially affected by operation of gate structure S352, 700 ft upstream and pumping at structure 5-A, 20 mi downstream, and to lesser degree by local pumping and drainage for agricultural purposes.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 18.70 ft Oct. 12, 1947; minimum 6.90 ft observed, October 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.64 ft Dec. 3; minimum, 8.51 ft Sept. 8.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.00	10.97	12.12	12.35	11.79	12.38	11.65	9.31	11.81	10.78	11.16	11.07
2	11.27	11.36	12.06	12.31	11.84	11.30	11.66	9.27	11.77	10.48	10.96	11.23
3	11.21	11.07	12.18	12.18	11.85	11.89	11.64	10.16	11.72	10.29	10.34	11.67
4	11.20	10.98	12.28	11.89	11.94	11.81	11.58	11.06	11.66	10.39	10.54	10.83
5	11.21	10.11	12.17	11.82	11.89	10.01	11.56	11.11	11.62	10.57	11.04	10.86
6	11.00	11.82	12.07	11.61	11.51	11.46	10.94	11.24	11.60	10.83	10.65	10.29
7	10.95	11.34	11.98	11.60	11.42	11.99	11.29	11.33	11.69	10.88	10.74	10.27
8	10.99	10.63	11.90	11.79	11.58	9.89	10.77	11.37	11.65	10.44	11.05	9.16
9	10.89	10.76	11.52	11.81	12.19	10.67	10.57	11.45	11.66	10.20	11.09	10.66
10	10.68	10.91	11.61	11.52	12.33	10.45	11.47	11.02	11.66	10.67	11.13	11.38
11	10.56	10.68	11.77	11.44	12.40	10.16	12.43	11.24	11.61	11.25	11.11	11.47
12	10.47	10.80	11.84	11.76	12.40	10.05	12.49	11.50	11.55	11.23	11.15	11.34
13	10.68	10.85	11.56	12.05	12.33	10.56	12.52	11.51	11.50	11.23	11.17	11.38
14	10.67	10.64	11.68	11.93	12.39	11.58	12.54	11.60	11.44	11.20	10.77	11.02
15	10.91	10.93	11.98	11.79	12.62	11.84	11.64	11.54	11.34	11.16	9.21	11.24
16	11.23	11.43	12.04	11.50	12.68	11.79	11.20	11.08	11.27	11.15	10.29	11.54
17	11.44	11.60	11.59	11.33	12.88	11.81	10.89	11.11	11.28	11.16	10.72	11.77
18	11.59	11.50	11.31	11.30	13.04	11.98	10.78	11.17	11.26	11.12	10.65	9.61
19	11.66	11.50	10.93	11.36	13.08	12.07	9.71	11.06	11.25	10.61	11.25	9.29
20	11.65	11.62	10.95	11.26	13.05	12.00	10.25	10.89	11.26	9.88	11.72	9.98
21	11.70	11.58	11.83	11.26	12.85	11.86	10.53	10.89	11.25	10.19	10.08	10.28
22	11.65	11.51	10.95	11.82	11.83	11.86	10.93	11.10	11.25	9.60	10.64	10.66
23	11.62	10.92	10.66	11.18	11.21	11.95	11.27	11.73	11.27	9.99	10.39	11.39
24	11.57	10.35	10.63	11.30	11.73	11.98	11.19	12.19	11.30	10.69	9.99	11.30
25	11.27	10.83	10.40	11.54	12.77	11.82	11.59	12.25	11.26	10.84	11.26	10.87
26	11.15	10.90	10.25	11.16	11.46	11.74	11.46	12.18	11.28	10.83	10.71	10.82
27	10.90	10.85	10.80	10.96	11.74	11.68	11.28	12.14	11.26	11.08	10.80	10.43
28	10.85	10.93	11.68	10.94	12.72	11.49	11.12	12.09	11.10	10.76	11.67	10.84
29	10.69	11.86	11.99	10.87	---	11.45	11.17	12.00	11.14	10.35	11.30	11.46
30	10.49	12.22	12.16	11.17	---	11.47	12.02	11.91	11.07	10.72	11.21	11.27
31	10.45	---	12.29	11.60	---	11.49	---	11.85	---	10.86	11.61	---
MEAN	11.08	11.12	11.59	11.56	12.20	11.43	11.34	11.30	11.43	10.69	10.85	10.85
MAX	11.70	12.22	12.29	12.35	13.08	12.38	12.54	12.25	11.81	11.25	11.72	11.77
MIN	10.45	10.11	10.25	10.87	11.21	9.89	9.71	9.27	11.07	9.60	9.21	9.16

WTR YR 1989 MEAN 11.28 MAX 13.08 MIN 9.16

265501080364900 LEVEE 8 CANAL NEAR CANAL POINT, FL

LOCATION.--Lat 26°55'01", long 80°36'49", in SE¼ sec.10, T.41S., R.37 E., Palm Beach County, Hydrologic Unit 03090202, on west side of U.S. Highway 441 bridge, 3.6 mi northeast of Canal Point, and 4.8 mi south of Port Mayaca.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1976 to current year.

GAGE.--Water-stage recorder and electromagnetic velocity meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records poor. Flow regulated by gated structure at Lake Okeechobee. Flow reverses during and after periods of heavy rainfall because of pumpage into the canal from agricultural lands in the Everglades (negative figures indicate flow towards Lake Okeechobee). Discharge computed from continuous velocity record obtained from recording electromagnetic velocity meter.

AVERAGE DISCHARGE.--13 years, 13.5 ft^3/s, 9,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 766 ft^3/s Apr. 25, 1983; maximum gage height, 17.55 ft Oct. 5, 1983; maximum daily reverse flow, 1,130 ft^3/s Sept. 21, 1985; no flow for many days most years; minimum gage height, 8.80 ft Nov. 1, 4, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 492 ft^3/s Jan. 3; maximum gage height, 15.94 ft Oct. 3; maximum daily reverse flow, 629 ft^3/s Aug. 23; minimum gage height, 10.54 ft Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461	198	339	480	389	184	201	36	40	-1.5	-70	-145
2	450	170	310	479	383	103	144	68	31	-21	-67	-131
3	394	108	306	492	369	46	141	51	22	-48	-126	-231
4	451	89	313	461	383	8.3	129	67	12	-83	-109	-306
5	482	26	319	455	376	71	116	85	7.3	-169	-110	-361
6	484	17	320	448	388	127	-51	108	4.9	-127	-95	-575
7	455	78	376	437	407	100	41	96	16	-117	-75	-490
8	468	165	373	427	391	106	21	16	-52	-35	-26	-354
9	477	169	370	416	368	79	34	64	20	48	-22	-293
10	486	206	380	401	284	13	126	164	66	58	-11	-240
11	487	290	368	399	280	49	157	175	83	38	-45	-214
12	423	257	408	362	271	95	169	175	79	33	-64	-182
13	445	253	387	353	297	88	163	174	93	29	-98	-113
14	412	252	362	328	349	122	148	146	80	-16	-149	-111
15	420	344	382	354	320	168	153	140	80	-88	-235	-124
16	395	357	404	374	302	192	140	127	90	-69	-176	-131
17	384	358	355	370	301	194	109	97	92	-60	-91	-219
18	370	251	219	388	296	215	47	63	81	-51	-189	-138
19	361	212	210	370	306	194	49	76	88	-72	-253	-181
20	351	167	395	369	287	187	51	89	69	-99	-366	-165
21	338	135	427	232	210	223	41	96	63	-137	-452	-105
22	279	41	284	256	300	205	15	74	52	-125	-602	-104
23	284	122	267	136	347	221	36	84	55	-103	-629	-110
24	255	116	292	129	387	238	58	91	50	-91	-509	-171
25	227	149	398	173	231	157	93	87	36	-104	-368	-192
26	226	184	395	331	147	170	143	71	32	-102	-306	-188
27	211	213	394	366	252	128	122	76	28	-113	-234	-142
28	199	251	435	367	297	204	115	64	-.40	-186	-227	-135
29	211	278	446	361	---	238	113	50	5.6	-122	-252	-122
30	217	309	448	374	---	256	104	53	5.9	-99	-251	-76
31	214	---	460	380	---	258	---	56	---	-80	-226	---
TOTAL	11317	5765	11142	11268	8918	4639.3	2928	2819	1329.30	-2113.5	-6433	-6047
MEAN	365	192	359	363	319	150	97.6	90.9	44.3	-68.2	-208	-202
MAX	487	358	460	492	407	258	201	175	93	58	-11	-76
MIN	199	17	210	129	147	8.3	-51	16	-52	-186	-629	-575
AC-FT	22450	11430	22100	22350	17690	9200	5810	5590	2640	-4190	-12760	-11990

CAL YR 1988 TOTAL 43804.00 MEAN 120 MAX 654 MIN -647 AC-FT 86890
WTR YR 1989 TOTAL 45532.10 MEAN 125 MAX 492 MIN -629 AC-FT 90310

265501080364900 LEVEE 8 CANAL NEAR CANAL POINT, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.65	15.00	14.86	14.41	14.08	13.41	13.26	12.99	11.98	11.46	11.24	11.49
2	15.66	14.98	14.84	14.41	14.05	13.44	13.12	13.04	11.94	11.47	11.25	11.49
3	15.70	14.94	14.79	14.45	14.03	13.56	13.11	12.97	11.89	11.48	11.29	11.58
4	15.71	15.21	14.77	14.42	14.02	13.61	13.04	12.89	11.83	11.48	11.27	11.66
5	15.65	15.38	14.75	14.31	13.99	13.61	13.06	12.88	11.79	11.50	11.22	11.74
6	15.56	15.40	14.71	14.30	13.98	13.62	13.21	12.92	11.76	11.47	11.20	11.84
7	15.61	15.29	14.66	14.28	13.97	13.74	13.23	12.98	11.85	11.42	11.22	11.82
8	15.57	15.24	14.65	14.26	13.98	13.83	13.14	12.83	11.76	11.42	11.19	11.80
9	15.51	15.20	14.65	14.25	13.95	13.93	13.04	12.70	11.75	11.40	11.21	11.75
10	15.52	15.21	14.64	14.24	13.92	13.91	12.99	12.74	11.76	11.38	11.23	11.73
11	15.49	15.19	14.62	14.20	13.89	13.77	12.93	12.70	11.71	11.38	11.18	11.71
12	15.47	15.17	14.71	14.18	13.87	13.71	12.90	12.60	11.68	11.37	11.21	11.71
13	15.44	15.17	14.76	14.20	13.76	13.71	12.83	12.53	11.64	11.36	11.21	11.70
14	15.35	15.13	14.67	14.14	13.73	13.67	12.82	12.51	11.59	11.33	11.33	11.68
15	15.34	15.07	14.63	14.15	13.71	13.63	12.93	12.54	11.49	11.29	11.35	11.67
16	15.33	15.04	14.65	14.16	13.71	13.61	12.91	12.58	11.41	11.29	11.40	11.69
17	15.33	15.02	14.76	14.14	13.68	13.57	12.90	12.56	11.43	11.29	11.40	11.74
18	15.31	15.00	14.63	14.12	13.67	13.57	12.98	12.48	11.42	11.25	11.37	11.79
19	15.29	14.98	14.52	14.07	13.63	13.55	13.02	12.44	11.39	11.27	11.37	11.80
20	15.26	15.03	14.51	14.09	13.59	13.50	13.07	12.47	11.39	11.33	11.41	11.83
21	15.27	15.03	14.50	14.02	13.62	13.49	13.11	12.46	11.35	11.32	11.53	11.99
22	15.27	14.89	14.55	14.23	13.69	13.48	13.05	12.42	11.34	11.27	11.60	11.80
23	15.23	15.14	14.56	14.33	13.84	13.45	13.03	12.40	11.36	11.25	11.61	11.87
24	15.21	15.13	14.55	14.22	13.62	13.50	13.01	12.41	11.39	11.21	11.59	11.92
25	15.16	14.98	14.52	14.17	13.49	13.50	13.00	12.38	11.34	11.25	11.54	12.13
26	15.09	14.91	14.50	14.12	13.46	13.42	13.00	12.30	11.36	11.31	11.56	12.19
27	15.05	14.93	14.47	14.15	13.41	13.36	13.00	12.26	11.34	11.30	11.54	12.18
28	15.02	15.00	14.47	14.14	13.36	13.29	12.95	12.22	11.33	11.34	11.50	12.16
29	14.99	14.91	14.46	14.13	---	13.23	12.91	12.12	11.40	11.32	11.49	12.15
30	14.99	14.88	14.44	14.16	---	13.25	12.92	12.04	11.44	11.27	11.51	12.15
31	14.98	---	14.42	14.13	---	13.29	---	12.00	---	11.27	11.48	---
MEAN	15.36	15.08	14.62	14.21	13.78	13.56	13.02	12.56	11.57	11.35	11.37	11.83
MAX	15.71	15.40	14.86	14.45	14.08	13.93	13.26	13.04	11.98	11.50	11.61	12.19
MIN	14.98	14.88	14.42	14.02	13.36	13.23	12.82	12.00	11.33	11.21	11.18	11.49

CAL YR 1988 MEAN 14.36 MAX 16.37 MIN 10.99
WTR YR 1989 MEAN 13.19 MAX 15.71 MIN 11.18

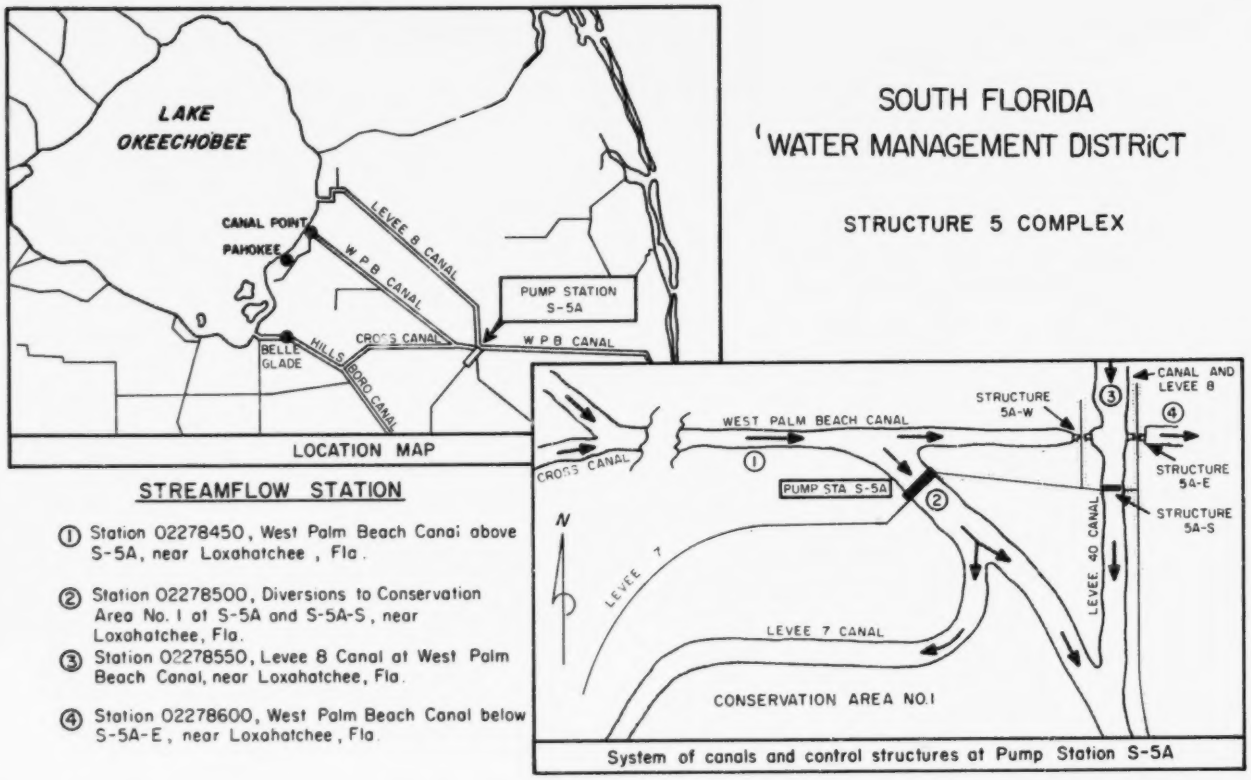


FIGURE 6. South Florida Water Management District, Structure 5 Complex.

02278450 WEST PALM BEACH CANAL ABOVE S-5A, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°22'15", in SW¼ sec.32, T.43 S., R.43 E., Palm Beach County, Hydrologic Unit 03090202, near south bank, 500 ft upstream from pump station S-5A, 0.3 mi upstream from Levee 8 Canal, 1.1 mi downstream from bridge on U.S. Highway 441 and Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Dual water-stage recorder, gate-opening indicator, and pump tachometer. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench mark). Prior to Sept. 30, 1967, deflection vane recorder at same site and auxiliary water-stage recorder at control structure 5A-W, 0.3 mi downstream. Prior to October 1981, all gages at datum 0.24 ft higher.

REMARKS.--Estimated daily discharge: June 1-5. Records fair, except for those estimated discharges, which are poor. Flow regulated primarily by pumpage at S-5A and to a lesser extent by operation of control structure 5A-W. Major regulation above the station occurs in Cross Canal, 1.5 mi upstream, and at Lake Okeechobee, 20 mi upstream. Discharge is the difference between pumpage at S-5A and gate discharge at S-5A-W. Negative figures indicate flow to the west. See records on Diversions to Conservation Area No. 1 at S-5A, near Loxahatchee (station 02278500; pump station S-5A, upper), for table of daily gage height.

COOPERATION.--Gate-opening and pump records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--32 years, 394 ft^3/s, 285,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,230 ft^3/s Mar. 27, 1970; maximum gage height, 14.26 ft present datum, Oct. 3, 1957; maximum daily reverse flow, 954 ft^3/s June 7, 1984; minimum gage height, 6.86 ft Oct. 28, 1981.

EXTREMEMS FOR CURRENT YEAR.--Maximum daily discharge, 2,540 ft^3/s Aug. 22; maximum gage height, 12.76 ft Nov. 6; maximum daily reverse flow, 608 ft^3/s Oct. 15; no flow for many days during the year; minimum gage height, 8.58 ft Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-410	-254	.00	.00	.00	658	.00	689	.00	.00	.00	859
2	-382	.00	.00	.00	.00	713	.00	.00	.00	.00	565	.00
3	-408	.00	.00	.00	.00	1510	.00	.00	-121	.00	667	1840
4	-422	1120	.00	.00	.00	2070	.00	.00	-77	.00	.00	1750
5	-372	696	.00	.00	.00	254	241	.00	-15	.00	.00	2190
6	-340	.00	.00	.00	.00	.00	763	.00	5.3	.00	.00	2110
7	-372	705	.00	.00	.00	1870	278	.00	39	.00	.00	1590
8	-365	.00	.00	.00	-3.6	1000	.00	.00	72	-116	.00	845
9	-365	.00	.00	.00	113	737	.00	.00	-70	-66	.00	.00
10	-364	.00	.00	.00	31	655	.00	.00	-98	-68	.00	.00
11	-350	.00	.00	.00	136	.00	.00	.00	-41	14	.00	.00
12	-431	.00	.00	.00	218	.00	.00	.00	.00	25	22	.00
13	-502	.00	.00	.00	76	.00	.00	.00	.00	58	-2.6	.00
14	-549	-59	.00	.00	90	.00	260	.00	.00	-91	1460	.00
15	-608	-180	.00	.00	188	.00	77	.00	.00	.00	746	.00
16	-585	-165	.00	.00	216	.00	.00	.00	58	.00	645	781
17	-560	-54	.00	.00	265	.00	.00	.00	80	.00	.00	1610
18	-504	.00	.00	.00	379	.00	424	.00	46	.00	951	1550
19	-415	.00	.00	.00	419	.00	.00	.00	34	493	1010	980
20	-304	.00	.00	.00	379	.00	.00	.00	194	571	2160	484
21	-314	.00	241	.00	369	.00	768	.00	242	703	2400	.00
22	-308	.00	1200	570	132	.00	.00	.00	268	665	2540	.00
23	-301	1020	.00	710	-144	.00	.00	.00	226	.00	2360	1550
24	-311	-27	.00	.00	.00	.00	.00	70	190	.00	1150	2410
25	-337	-48	.00	.00	161	.00	.00	181	112	.00	905	2010
26	-410	-47	.00	.00	264	.00	.00	162	72	.00	782	1240
27	-419	-47	.00	.00	287	.00	.00	162	65	.00	.00	714
28	-406	-97	.00	.00	421	.00	.00	119	23	247	765	.00
29	-409	-131	.00	.00	---	.00	.00	89	28	.00	889	.00
30	-411	.00	.00	.00	---	.00	1540	-84	-57	.00	.00	.00
31	-410	---	.00	.00	---	.00	---	-60	---	.00	.00	---
TOTAL	-12660	2432.00	1441.00	1280.00	3996.40	9467.00	4351.00	1328.00	1275.30	2435.00	20014.40	24513.00
MEAN	-408	81.1	46.5	41.3	143	305	145	42.8	42.5	78.5	646	817
MAX	-301	1120	1200	710	421	2070	1540	689	268	703	2540	2410
MIN	-608	-254	.00	.00	-144	.00	.00	-84	-121	-116	-2.6	.00
AC-FT	-25110	4820	2860	2540	7930	18780	8630	2630	2530	4830	39700	48620

CAL YR 1988 TOTAL 90660.00 MEAN 248 MAX 3740 MIN -627 AC-FT 179800
WTR YR 1989 TOTAL 59873.10 MEAN 164 MAX 2540 MIN -608 AC-FT 118800

02278500 DIVERSIONS TO CONSERVATION AREA NO. 1 AT S-5A-S, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'00", long 80°22'10", in S½ sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, at pump station S-5A, 1.5 mi downstream from Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

GAGE.--Dual water-stage recorder, gate opening indicator, and pump tachometer. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench mark). Prior to Sept. 30, 1967, auxiliary deflection vane recorder 500 ft upstream and in Levee 8 Canal, and auxiliary water-stage recorder upstream from S-5A-W and downstream from S-5A-E. Prior to October 1981, all gages at datum 0.24 ft higher.

REMARKS.--Estimated daily discharge: June 1-5. Records fair, except for those estimated daily discharges, which are poor. Normal flow is considered as that to the south into Conservation Area No. 1. Flow is controlled by S-5A pumpage, syphoning and regulation of Cross Canal, 1.5 mi upstream, and gate structure S352, 20 mi upstream. Negative figures indicate releases from gate S-5A-S.

COOPERATION.--Gate-opening and pump records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--32 years, 371 ft^3/s, 268,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,040 ft^3/s Mar. 28, 1970; maximum gage height, 14.26 ft present datum, Oct. 3, 1957; maximum daily reverse flow, 2,220 ft^3/s Apr. 27, 1982; no flow for many days each year; minimum gage height, 6.86 ft Oct. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,540 ft^3/s Aug. 22; maximum gage height, 12.76 ft Nov. 6; maximum daily reverse flow, 629 ft^3/s July 6; no flow for many days during the year; minimum gage height, 8.58 ft Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	-72	200	134	100	636	.00	689	-78	-536	.00	859
2	.00	.00	111	151	117	713	.00	.00	83	-459	565	.00
3	.00	.00	135	154	105	1510	.00	.00	103	-495	667	1840
4	.00	1120	143	167	126	2070	.00	.00	34	-465	.00	1750
5	.00	696	129	145	129	254	241	.00	-15	-568	.00	2190
6	.00	.00	114	117	143	.00	763	.00	-17	-629	.00	2110
7	.00	705	180	127	147	1870	278	.00	-34	-619	.00	1590
8	.00	.00	248	139	136	1000	.00	.00	-33	-212	.00	845
9	.00	.00	250	150	341	737	.00	.00	-50	.00	.00	.00
10	.00	.00	132	141	348	655	-273	.00	-309	.00	.00	.00
11	.00	.00	146	160	371	.00	-448	.00	-475	.00	.00	.00
12	-266	.00	392	151	-5.0	.00	-465	.00	-473	.00	.00	.00
13	-265	.00	364	144	332	.00	-483	.00	-496	.00	.00	.00
14	-290	.00	281	155	329	.00	-459	.00	-486	-475	1490	.00
15	-366	.00	172	178	343	.00	-397	.00	-558	-545	746	.00
16	-348	.00	100	181	343	.00	-399	.00	-540	-547	645	781
17	-324	.00	142	132	194	.00	-430	.00	-448	-542	.00	1610
18	-231	.00	215	117	325	.00	184	.00	-416	-531	951	1550
19	-118	.00	64	130	361	.00	.00	.00	-13	206	1010	980
20	.00	.00	8.3	125	272	.00	.00	.00	-389	571	2160	484
21	.00	.00	503	175	264	.00	768	.00	-376	703	2400	.00
22	.00	.00	1540	868	333	.00	.00	.00	-403	665	2540	.00
23	.00	1020	22	710	170	.00	.00	.00	-345	.00	2360	1550
24	.00	.00	182	.00	172	.00	.00	-117	-488	.00	1150	2410
25	-66	.00	357	93	117	.00	.00	-428	-420	.00	905	2010
26	-186	.00	285	144	558	.00	.00	-418	-344	.00	782	1240
27	-192	.00	34	164	367	.00	.00	-410	-517	.00	.00	714
28	-192	.00	52	149	336	.00	.00	-369	-470	247	765	.00
29	-191	.00	115	153	---	.00	.00	-406	-478	.00	889	.00
30	-191	223	126	153	---	.00	1540	144	-539	.00	.00	.00
31	-189	---	121	111	---	.00	---	618	---	.00	.00	---
TOTAL	-3415.00	3692.00	6863.3	5418.00	7474.0	9445.00	420.00	-697.00	-8990	-4231.00	20025.00	24513.00
MEAN	-110	123	221	175	267	305	14.0	-22.5	-300	-136	646	817
MAX	.00	1120	1540	710	717	2070	1540	689	103	703	2540	2410
MIN	-366	-72	8.3	.00	-5.0	.00	-483	-428	-558	-629	.00	.00
AC-FT	-6770	7320	13610	10750	14820	18730	833	-1380	-17830	-8390	39720	48620

CAL YR 1988	TOTAL	112619.30	MEAN 308	MAX 3980	MIN -1060	AC-FT 223400		
WTR YR 1989	TOTAL	60517.30	MEAN 166	MAX 2540	MIN -629	AC-FT 120000		

02278500 DIVERSIONS TO CONSERVATION AREA NO. 1 AT S-5A-S, NEAR LOXAHATCHEE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.33	11.23	11.95	12.19	11.60	11.88	11.56	9.01	10.43	11.08	11.48	10.89
2	11.56	11.46	11.96	12.18	11 57	11.18	11.56	9.69	10.36	10.77	11.14	11.51
3	11.55	11.21	11.98	12.11	11.56	10.89	11.50	10.02	10.23	10.58	10.47	10.92
4	11.54	10.16	12.14	11.92	11.70	10.52	11.43	10.66	10.20	10.68	10.89	10.03
5	11.52	9.65	12.01	11.85	11.83	10.03	11.47	10.75	10.16	10.89	11.36	10.07
6	11.34	11.96	11.83	11.59	11.50	11.62	10.24	11.03	10.13	11.09	10.99	9 68
7	11.33	11.22	11.81	11.63	11.47	10.77	11.38	11.20	10.68	11.12	10.75	9.78
8	11.33	10.91	11.77	11.79	11.43	9.52	11.04	11.05	11.26	10.75	10.96	9.34
9	11.19	10.86	11.57	11.79	11.74	10.60	10.83	10.99	11.42	10.47	11.13	10.97
10	11.05	10.90	11.59	11.66	11.89	10.60	10.88	10.72	11.33	10.36	11.22	11.68
11	10.88	10.75	11.77	11.57	11.94	10.55	11.68	10.60	11.19	10.64	11.34	11.78
12	10.88	10.85	12.01	11.82	12.01	10.37	11.94	10.62	10.85	10.66	11.51	11.65
13	11.06	10.91	11.89	12.03	11.95	10.39	12.27	10.72	10.57	10.74	11.72	11.70
14	11.08	10.69	11.67	11.97	11.84	11.29	12.36	10.96	10.55	10.89	10.69	11.33
15	11.31	10.66	12.05	11.86	11.87	11.64	11.90	11.24	10.48	10.90	9.54	11.51
16	11.58	11.07	12.06	11.60	11.88	11.63	11.53	11.38	10.28	10.88	10.15	11.12
17	11.85	11.37	11.88	11.44	11.89	11.63	11.17	11.21	10.17	10.94	11.06	10.99
18	11.89	11.13	11.52	11.40	12.04	11.92	10.68	11.09	10.06	10.90	10.68	9.15
19	11.94	11.13	11.16	11.36	12.19	12.05	9.99	10.97	10.09	10.64	11.02	9.29
20	11.94	11.26	10.99	11.37	12.21	11.94	10.43	10.79	10.31	10.09	11.09	10.15
21	11.98	11.53	11.48	11.53	12.20	11.80	10.63	10.78	10.58	10.28	9.64	10.70
22	11.99	11.57	9.77	11.61	11.98	11.73	11.35	10.57	10.84	9.64	9.63	10.96
23	11.94	10.55	10.83	11.03	11.00	11.86	11.50	10.65	10.96	10.26	9.53	10.47
24	11.90	10.55	10.90	11.61	10.44	11.93	11.32	11.21	10.98	10.97	10.03	9.47
25	11.63	11.01	10.69	11.74	11.29	11.82	11 58	11.26	11.13	11.12	11.01	9.43
26	11.53	11.04	10.53	11.39	11.64	11.69	11.37	11.24	11.24	11.13	10.69	9.81
27	11.27	11.01	10.56	11.25	11.50	11.55	11.12	11.19	11.25	11.39	11.12	10.36
28	11.23	11.21	11.24	11.22	11.93	11.28	10.92	11.17	11.28	10.68	11.17	11.14
29	11.08	11.56	11.67	11.12	---	11.21	11.01	11.10	11.45	10.65	10.91	11.71
30	10.96	11.74	11.94	11.16	---	11.32	10.57	10.92	11.34	11.00	11.43	11.54
31	10.86	---	12.08	11.45	---	11.36	---	10.61	---	11.14	11.86	---
MEAN	11.44	11.04	11.53	11.62	11.72	11.24	11.24	10.82	10.73	10.75	10.85	10.64
MAX	11.99	11.96	12 14	12.19	12.21	12.05	12.36	11.38	11.45	11.39	11.86	11.78
MIN	10.86	9.65	9.77	11.03	10.44	9.52	9.99	9.01	10.06	9.64	9.53	9.15

CAL YR 1988 MEAN 10.94 MAX 12.14 MIN 8.99
WTR YR 1989 MEAN 11.13 MAX 12.36 MIN 9.01

02278501 CONSERVATION AREA NO. 1 BELOW S-5 COMPLEX, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'00", long 80°22'10", in S½ sec.32, T.43 S., R40 E., Palm Beach County, Hydrologic Unit 03090202, at pump station S-5A, 1.5 mi downstream from Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1955 to current year (gage heights). Records of gage height prior to October 1962 are available from the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench marks). Prior to October 1981 at datum 0.24 ft higher.

REMARKS.--No estimated daily gage heights. Gage records water level in Conservation Area No. 1 at structure 5 complex. Stage is affected by pumping at S-5A and S-6 and the operation of gated-control structures in levees 39 and 40.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 18.54 ft present datum, Sept. 26, 1960; minimum, 8.26 ft present datum, Apr. 20, 24, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.44 ft Sept. 27; minimum, 10.03 ft June 3.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.44	13.67	13.62	13.17	12.12	12.79	13.12	14.18	10.60	11.66	13.72	15.75
2	15.44	13.68	13.56	13.11	12.01	13.60	13.08	13.83	10.27	11.76	13.99	15.69
3	15.44	13.75	13.57	13.07	12.00	14.47	12.89	13.77	10.10	11.90	14.10	15.83
4	15.35	14.62	13.51	12.99	11.91	14.85	12.68	13.67	10.19	12.08	13.82	16.07
5	15.32	14.89	13.51	12.97	11.84	14.40	12.60	13.57	10.18	12.39	13.77	16.26
6	15.34	14.47	13.46	13.02	11.77	14.10	13.59	13.42	10.15	12.48	13.71	16.36
7	15.37	14.72	13.39	12.92	11.76	14.79	13.37	13.22	10.68	12.45	13.66	16.30
8	15.36	14.50	13.36	12.87	11.72	15.17	13.12	13.13	11.25	12.43	13.58	16.22
9	15.37	14.42	13.31	12.81	11.62	14.78	12.88	12.99	11.47	12.49	13.60	16.10
10	15.35	14.36	13.27	12.67	11.87	14.73	12.64	12.78	11.40	12.48	13.56	16.06
11	15.35	14.31	13.27	12.56	11.86	14.53	12.38	12.53	11.38	12.46	13.75	16.01
12	15.23	14.26	13.30	12.64	11.91	14.55	12.18	12.31	11.42	12.45	13.77	15.97
13	15.12	14.19	13.39	12.77	11.90	14.52	11.99	12.08	11.27	12.45	13.74	15.94
14	15.07	14.08	13.44	12.71	11.79	14.49	11.96	11.83	10.90	12.23	14.34	15.92
15	14.96	14.01	13.35	12.57	11.77	14.44	11.96	11.70	10.50	11.97	14.66	15.90
16	14.91	13.95	13.28	12.41	11.74	14.36	12.16	11.90	10.24	11.81	14.68	15.92
17	14.81	13.86	13.15	12.27	11.71	14.32	12.49	12.07	10.17	11.71	14.47	15.95
18	14.76	13.83	13.10	12.20	11.72	14.29	13.22	12.11	10.08	11.69	14.79	16.09
19	14.78	13.82	13.05	12.17	11.79	14.24	13.31	12.03	10.08	12.27	14.92	16.02
20	14.77	13.80	12.98	12.28	11.88	14.24	13.30	11.90	10.25	13.32	15.31	15.95
21	14.77	13.75	13.06	12.33	11.89	14.19	14.07	11.73	10.48	13.78	15.55	15.92
22	14.70	13.91	14.18	13.08	11.88	14.13	13.79	11.60	10.71	13.96	15.78	15.91
23	14.66	14.64	13.71	13.81	11.73	14.10	13.75	11.43	10.87	13.75	15.87	15.96
24	14.62	14.09	13.71	13.35	11.19	13.98	13.67	11.26	10.94	13.66	15.88	16.18
25	14.52	14.03	13.74	13.16	10.79	13.90	13.60	11.22	11.12	13.64	15.85	16.26
26	14.39	14.02	13.73	13.03	10.92	13.87	13.46	11.21	11.25	13.62	15.75	16.35
27	14.31	13.92	13.66	12.83	11.26	13.76	13.30	11.16	11.28	13.62	15.68	16.33
28	14.21	13.71	13.52	12.70	11.53	13.69	13.16	11.16	11.40	13.96	15.68	16.23
29	14.06	13.48	13.40	12.62	---	13.59	13.00	11.10	11.53	13.83	15.69	16.19
30	13.93	13.56	13.32	12.46	---	13.43	13.87	10.94	11.65	13.77	15.65	16.16
31	13.79	---	13.23	12.26	---	13.26	---	10.71	---	13.77	15.65	---
MEAN	14.89	14.08	13.42	12.77	11.71	14.18	13.02	12.21	10.79	12.77	14.68	16.06
MAX	15.44	14.89	14.18	13.81	12.12	15.17	14.07	14.18	11.65	13.96	15.88	16.36
MIN	13.79	13.48	12.98	12.17	10.79	12.79	11.96	10.71	10.08	11.66	13.56	15.69

CAL YR 1988 MEAN 15.05 MAX 17.04 MIN 12.76
WTR YR 1989 MEAN 13.39 MAX 16.36 MIN 10.08

02278550 LEVEE 8 CANAL AT WEST PALM BEACH CANAL, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°21'35", in SE¼ sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, at upstream side in center of span of bridge on U.S. Highway 441, 50 ft upstream from mouth and West Palm Beach Canal, 0.2 mi east of pump station S-5A, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL-84-2A: 1982(m).

GAGE.--Water-stage recorder and gate-opening indicators. Datum of gage is National Geodetic Vertical Datum of 1929. (South Florida Water Management District bench mark). Prior to Sept. 30, 1967, deflection vane recorder at same site. Auxiliary water-stage recorders upstream from S-5A and downstream from S-5A-E. Prior to October 1981 all gages at datum 0.24 ft higher.

REMARKS.--Estimated daily discharge and gage heights: June 1-5. Records fair, except those for estimated daily discharges and gage heights, which are poor. Flow regulated by operation of S-5A-E, S-5A-S, S-5A-W just downstream and pumpage at S-5A. Gate operation and pumpage occasionally reverses the flow (negative figures indicate flow reversed). Discharge is summation of flows at S-5A-E, S-5A-S and S-5A-W. Discharge computed from relation between discharge, head, and gate openings.

COOPERATION.--Gate-opening record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--32 years, 143 ft^3/s, 103,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,190 ft^3/s Mar. 31, 1970; maximum gage height, 19.34 ft present datum, Sept. 27, 1960, from floodmark; maximum daily reverse flow, 2,540 ft^3/s Apr. 27, 1982; minimum gage height, 8.29 ft present datum, Mar. 17, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 723 ft^3/s May 31; maximum gage height, 15.79 ft Nov. 5; maximum daily reverse flow, 678 ft^3/s June 24; no flow for many days during the year; minimum gage height, 10.01 ft June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	410	199	382	172	234	-22	2.6	.00	-59	-536	.00	.00
2	382	.00	214	188	237	.00	.00	.00	133	-459	.00	.00
3	408	.00	224	190	195	.00	.00	.00	285	-495	.00	.00
4	438	.00	227	203	201	.00	.00	.00	163	-465	.00	.00
5	415	.00	212	182	193	.00	22	.00	51	-568	.00	.00
6	380	.00	194	171	191	.00	.00	.00	35	-629	.00	.00
7	372	32	223	195	198	.00	.00	.00	-61	-619	.00	.00
8	365	37	248	199	226	.00	.00	.00	-105	-96	.00	.00
9	365	.00	269	214	342	.00	.00	.00	20	66	.00	.00
10	364	35	173	209	397	.00	-273	60	-211	68	.00	.00
11	350	33	187	226	330	.00	-448	57	-434	-14	.00	.00
12	262	.00	407	204	-143	.00	-427	53	-473	-25	-22	.00
13	282	.00	364	180	341	.00	-430	47	-450	-58	2.6	.00
14	259	127	294	190	344	61	-664	50	-460	-384	34	.00
15	242	237	231	209	269	80	-464	37	-558	-545	.00	.00
16	237	208	173	216	262	74	-399	.00	-598	-547	.00	.00
17	236	100	208	231	122	70	-430	.00	-528	-542	.00	.00
18	273	46	261	206	113	70	-240	.00	-462	-531	.00	.00
19	297	46	100	193	103	67	46	.00	-47	-287	.00	.00
20	304	49	46	166	84	63	55	.00	-583	.00	.00	.00
21	314	50	300	175	98	61	.00	.00	-618	.00	.00	.00
22	308	54	382	98	289	64	.00	35	-671	.00	.00	.00
23	301	59	68	27	498	58	.00	92	-571	.00	.00	.00
24	311	236	224	45	411	63	104	-92	-678	.00	.00	.00
25	297	370	396	137	712	75	75	-511	-532	.00	.00	.00
26	287	363	326	183	294	76	81	-479	-416	.00	.00	.00
27	280	361	135	204	170	78	80	-478	-582	.00	.00	.00
28	277	414	148	190	73	120	80	-406	-493	.00	.00	.00
29	278	420	165	194	---	104	81	-426	-506	.00	.00	.00
30	277	515	165	208	---	93	31	300	-482	.00	.00	.00
31	266	---	162	209	---	82	---	723	---	.00	.00	---
TOTAL	9837	3991.00	7108	5614	6784	1337.00	-3117.40	-938.00	-9891	-6666.00	14.60	.00
MEAN	317	133	229	181	242	43.1	-104	-30.3	-330	-215	.47	.000
MAX	438	515	407	231	712	120	104	723	285	68	34	.00
MIN	236	.00	46	27	-143	-22	-664	-511	-678	-629	-22	.00
AC-FT	19510	7920	14100	11140	13460	2650	-6180	-1860	-19620	-13220	29	.00

CAL YR 1988 TOTAL 65334.00 MEAN 179 MAX 1250 MIN -251 AC-FT 129600
WTR YR 1989 TOTAL 14073.20 MEAN 38.6 MAX 723 MIN -678 AC-FT 27910

02278550 LEVEE 8 CANAL AT WEST PALM BEACH CANAL, NEAR LOXAHATCHEE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.44	11.92	13.65	13.24	12.16	12.35	12.73	12.69	10.47	11.62	11.41	12.29
2	12.53	14.09	13.76	13.20	12.07	13.07	12.91	13 11	10.40	11.73	11.45	12.31
3	12.66	14.75	13.86	13.16	12.05	13.33	12.78	13.05	10.26	11.86	11.64	13.11
4	12.82	15.08	13.83	13.10	11.98	13.54	12.40	12.86	10.22	12.04	11.67	13.92
5	12.44	15.48	13.77	13.05	11.90	13.48	12.36	12.76	10.17	12.34	11.61	14.20
6	12.11	15.60	13.66	13.08	11.85	13.56	13.08	12.87	10.12	12.42	11.63	14.38
7	12.25	15.39	13.64	12.99	11.84	13.79	13.29	13.01	10.67	12.39	11.73	14.05
8	12.21	15.17	13.47	12.95	11.79	13.98	13.22	12.92	11.23	11.40	11.28	13.72
9	12.07	15.23	13.32	12.90	11.68	14.12	13.08	12.61	11.43	10.49	11.17	13.56
10	11.93	15.20	13.28	12.74	11.89	14.30	12.73	12.28	11.36	10.37	11.21	13.22
11	11.69	15.04	13.28	12.66	11.88	14.02	12.34	12.04	11.35	10.64	11.31	12.98
12	12.14	15.14	13.33	12.74	11.91	13.84	12.15	11.78	11.38	10.63	11.47	12.78
13	12.73	15.16	13.41	12.86	11.92	13.81	11.95	11.35	11.23	10.64	11.73	12.70
14	12.67	14.95	13.46	12.81	11.81	13.54	11.93	11.58	10.86	11.52	12.28	12.63
15	12.87	14.08	13.36	12.70	11.79	13.19	11.93	11.67	10.45	11.92	12.87	12.54
16	13.03	13.96	13.29	12.53	11.76	13.20	12.13	11.84	10.19	11.76	12.57	12.50
17	13.18	14.24	13.16	12.34	11.72	13.13	12.46	12.05	10.13	11.67	12.23	12.54
18	12.97	14.70	13.11	12.25	11.73	13.13	12.97	12.08	10.05	11.64	12.64	12.62
19	12.68	14.78	13.05	12.24	11.81	13.18	13.01	11.93	10.08	11.79	12.91	13.01
20	12.33	14.99	12.98	12.35	11.89	13.04	12.85	11.88	10.23	12.11	13.19	12.87
21	12.41	15.13	13.09	12.45	11.90	12.83	13.19	11.76	10.45	12.43	13.47	12.69
22	12.39	14.93	14.29	12.97	11.90	12.77	13.21	11.60	10.68	12.22	14.13	12.60
23	12.32	14.87	14.51	14.29	11.74	12.53	13.13	11.16	10.85	11.82	14.41	12.33
24	12.31	15.31	14.18	14.27	11.20	12.82	12.96	11.04	10.90	11.68	14.01	12.56
25	12.11	14.96	13.76	13.87	10.89	13.17	12.91	11.19	11.09	11.70	13.48	12.72
26	12.25	14.76	13.75	13.11	10.97	13.17	12.69	11.18	11.23	11.74	13.11	12.99
27	12.02	14.72	13.66	12.94	11.29	13.28	12.56	11.13	11.23	11.76	12.93	12.84
28	11.92	14.82	13.54	12.79	11.55	12.55	12.59	11.14	11.36	11.82	12.83	12.81
29	11.79	14.35	13.46	12.71	---	11.88	12.39	11.08	11.49	11.85	12.72	12.73
30	11.67	14.10	13.39	12.56	---	11.77	12.33	10.98	11.59	11.58	12.48	12.43
31	11.58	---	13.29	12.31	---	12.03	---	10.66	---	11.45	12.41	---
MEAN	12.34	14.76	13.54	12.91	11.75	13.17	12.69	11 91	10.77	11.65	12.39	12.95
MAX	13.18	15.60	14.51	14.29	12.16	14.30	13.29	13.11	11.59	12.43	14.41	14.38
MIN	11.58	11.92	12.98	12.24	10.89	11.77	11.93	10.66	10.05	10.37	11.17	12.29

CAL YR 1988 MEAN 13.67 MAX 17.69 MIN 10.30
WTR YR 1989 MEAN 12.57 MAX 15.60 MIN 10.05

02278600 WEST PALM BEACH CANAL BELOW S-5A-E, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°21'50", in SE¼ sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, near left bank, 350 ft downstream from control structure 5A-E, and 6 mi west of Laxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1955 to current year. Monthly discharge only for September 1955, published in WSP 1724. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

GAGE.--Water-stage recorder and gate opening indicator. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench mark). Auxiliary water-stage recorder in Levee 8 Canal 50 ft upstream from S-5A-E. Prior to October 1981 all gages at datum 0.24 ft higher.

REMARKS.--Estimated daily discharge: June 1-5. Estimated daily gage heights: July 30 to Aug. 1. Records good, except those for estimated daily discharges, and gage heights, which are poor. Normal flow to east regulated at S-5A-E for irrigation and drainage. Flow diverted upstream from station through S-5A-S and by pumpage at S-5A. Flow materially affected by regulation of Cross Canal 1.5 mi upstream and gate structures S352, 20 mi upstream. Negative figures indicate flow to the west. Discharge computed from relation between discharge, head, and gate openings at S-5A-E.

COOPERATION.--Gate-opening record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--34 years, 168 ft^3/s, 121,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,150 ft^3/s June 26, 1984; maximum gage height, 16.38 ft present datum, Oct. 23, 1983; maximum daily reverse flow, 930 ft^3/s Mar. 29, 1982; no flow for many days each year; minimum gage height, 6.24 ft present datum, Sept. 9, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 322 ft^3/s Nov. 25; maximum gage height, 12.23 ft Apr. 7; no flow for many days; minimum gage height, 7.26 ft June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	17	182	38	134	.00	2.6	.00	19	.00	.00	.00
2	.00	.00	103	37	120	.00	.00	.00	50	.00	.00	.00
3	.00	.00	89	36	90	.00	.00	.00	61	.00	.00	.00
4	.00	.00	84	36	75	.00	.00	.00	52	.00	.00	.00
5	43	.00	83	37	64	.00	22	.00	51	.00	.00	.00
6	40	.00	80	54	48	.00	.00	.00	57	.00	.00	.00
7	.00	32	43	68	51	.00	.00	.00	12	.00	.00	.00
8	.00	37	.00	60	86	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	19	64	114	.00	.00	.00	.00	.00	.00	.00
10	.00	35	41	68	80	.00	.00	60	.00	.00	.00	.00
11	.00	33	41	66	95	.00	.00	57	.00	.00	.00	.00
12	97	.00	15	53	80	.00	38	53	.00	.00	.00	.00
13	45	.00	.00	36	85	.00	53	47	46	.00	.00	.00
14	.00	68	13	35	105	61	55	50	26	.00	.00	.00
15	.00	57	59	31	114	80	10	37	.00	.00	.00	.00
16	.00	43	73	35	135	74	.00	.00	.00	.00	.00	.00
17	.00	46	66	99	193	70	.00	.00	.00	.00	.00	.00
18	.00	46	46	89	167	70	.00	.00	.00	.00	.00	.00
19	.00	46	36	63	161	67	46	.00	.00	.00	.00	.00
20	.00	49	38	41	191	63	55	.00	.00	.00	.00	.00
21	.00	50	38	.00	203	61	.00	.00	.00	.00	.00	.00
22	.00	54	45	.00	88	64	.00	35	.00	.00	.00	.00
23	.00	58	46	27	184	58	.00	92	.00	.00	.00	.00
24	.00	209	42	45	239	63	104	95	.00	.00	.00	.00
25	26	322	39	44	156	75	75	98	.00	.00	.00	.00
26	63	316	41	39	.00	76	81	101	.00	.00	.00	.00
27	53	314	101	40	90	78	80	94	.00	.00	.00	.00
28	63	317	96	41	158	120	80	82	.00	.00	.00	.00
29	60	289	50	41	---	104	81	69	.00	.00	.00	.00
30	57	292	39	55	---	93	31	72	.00	.00	.00	.00
31	45	---	41	98	---	82	---	45	---	.00	.00	---
TOTAL	592.00	2731.00	1689.00	1476.00	3306.00	1359.00	813.60	1087.00	374.00	.00	.00	.00
MEAN	19.1	91.0	54.5	47.6	118	43.8	27.1	35.1	12.5	.000	.000	.000
MAX	97	322	182	99	239	120	104	101	61	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1170	5420	3350	2930	6560	2700	1610	2160	742	.00	.00	.00

CAL YR 1988 TOTAL 43386.00 MEAN 119 MAX 664 MIN .00 AC-FT 86060
WTR YR 1989 TOTAL 13427.60 MEAN 36.8 MAX 322 MIN .00 AC-FT 26630

02278600 WEST PALM BEACH CANAL BELOW S-5A-E, NEAR LOXAHATCHEE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.88	11.07	9.90	10.78	10.24	10.08	11.19	9.56	8.74	8.99	8.52	8.64
2	9.66	10.99	10.88	10.93	10.44	10.57	10.75	9.92	8.80	8.79	8.77	8.75
3	9.49	10.86	10.51	10.95	10.51	11.28	10.03	9.60	8.71	10.07	8.63	8.80
4	8.99	10.89	10.85	10.86	10.90	10.61	9.54	10.48	9.09	11.02	8.66	8.81
5	8.67	8.90	10.83	10.78	11.14	9.53	9.65	10.66	9.06	10.86	8.35	9.95
6	9.90	8.48	10.92	10.54	10.84	10.24	10.93	10.52	8.73	9.63	8.34	10.89
7	9.70	8.89	11.27	11.02	10.11	10.58	12.00	10.16	10.35	9.18	8.45	9.67
8	9.72	10.51	10.91	11.43	9.92	10.69	11.52	9.79	10.53	8.81	8.40	8.90
9	9.87	10.70	9.85	11.16	10.64	11.59	10.86	9.56	10.57	8.78	8.09	8.67
10	9.62	10.66	10.49	10.80	10.34	11.50	10.32	9.99	10.52	8.96	8.19	8.70
11	9.19	10.94	10.37	10.83	10.18	11.18	9.91	10.66	10.33	9.62	8.63	8.67
12	9.56	9.68	10.48	11.04	10.70	10.60	10.16	10.59	9.62	9.83	8.67	8.72
13	10.90	9.41	10.77	10.70	10.52	10.15	10.78	10.41	8.91	9.75	8.76	8.67
14	10.41	9.74	10.65	10.75	9.73	9.70	10.63	10.51	8.94	9.68	9.21	8.82
15	10.96	11.07	10.59	11.04	10.02	10.47	11.32	10.40	8.07	9.32	9.42	8.63
16	10.97	10.85	11.03	10.47	10.19	10.87	10.83	9.62	8.04	9.94	9.18	8.77
17	10.94	10.57	11.29	9.59	10.91	11.07	10.34	10.73	7.85	10.25	8.93	8.91
18	10.92	11.08	11.29	10.95	11.41	11.04	8.73	10.47	7.63	10.56	8.93	9.05
19	10.77	11.20	10.81	10.57	11.51	11.25	8.86	10.23	7.44	10.85	8.97	9.77
20	10.71	10.85	10.53	10.90	11.46	11.38	9.86	9.99	8.21	10.23	9.11	9.22
21	10.59	10.96	10.59	10.78	11.40	11.27	10.41	9.83	9.05	9.70	9.51	8.56
22	10.01	10.06	10.80	10.89	11.12	11.02	9.41	9.65	9.88	9.05	10.52	8.49
23	9.81	9.06	10.90	10.65	10.60	11.12	8.72	9.60	9.78	8.84	10.23	8.49
24	9.61	9.49	11.11	10.80	10.53	11.11	9.39	10.08	9.44	8.85	9.34	8.56
25	9.43	10.10	11.17	10.61	10.37	10.81	10.29	10.16	9.37	8.76	8.92	8.60
26	10.55	10.07	10.88	10.54	10.04	10.72	9.91	10.07	9.39	8.60	8.80	8.64
27	10.80	10.07	10.46	10.25	9.98	10.71	9.88	10.19	10.08	8.55	8.68	8.64
28	10.25	10.10	11.30	9.98	10.99	10.29	9.89	10.43	10.65	8.51	8.69	8.73
29	10.28	10.42	11.20	9.79	---	10.72	9.61	10.58	10.87	8.57	8.83	9.74
30	10.31	10.08	10.79	9.80	---	10.86	10.35	10.41	9.72	8.48	9.15	11.00
31	10.72	---	10.48	9.90	---	11.31	---	9.63	---	8.40	8.59	---
MEAN	10.10	10.26	10.77	10.65	10.60	10.78	10.20	10.14	9.28	9.40	8.89	9.02
MAX	10.97	11.20	11.30	11.43	11.51	11.59	12.00	10.73	10.87	11.02	10.52	11.00
MIN	8.67	8.48	9.85	9.59	9.73	9.53	8.72	9.56	7.44	8.40	8.09	8.49

CAL YR 1988 MEAN 10.58 MAX 14.09 MIN 8.40
WTR YR 1989 MEAN 10.01 MAX 12.00 MIN 7.44

02279000 WEST PALM BEACH CANAL AT WEST PALM BEACH, FL

LOCATION.--Lat 26°38'40", long 80°03'22", in NW¼ sec.15, T.44 S., R.34 E., Palm Beach County, Hydrologic Unit 03090202, on left bank in concrete control house north of control structure, 200 ft downstream from bridge on U.S. Highway 1, and 4.9 mi south of courthouse in West Palm Beach.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

GAGE.--Digital stage and gate recorders. Datum of gage is National Geodetic Vertical Datum of 1929. (State Department of Transportation bench mark). Prior to May 1, 1984, digital upstream stage recorder, and gate-opening indicator at site 200 ft upstream at same datum. Prior to April 23, 1940, nonrecording gage, April 26, 1940 to December 20, 1949, water-stage record, at same site at datum 0.25 ft higher, and December 20, 1949 to June 3, 1959, at same site and present datum. June 3, 1959 to September 30, 1985, water-stage and deflection vane recorder at site 800 ft upstream at present datum.

REMARKS.--Estimated daily discharge: Mar. 4 to Apr. 4, Apr. 16, July 7 to Aug. 1. Records poor. Flow regulated by operation of control structure. Since January 1954, flow affected by control structures 20 mi upstream. Discharge computed from relations between discharge and gate openings.

COOPERATION.--Gate-operation log provided by South Florida Water Management District.

AVERAGE DISCHARGE.--48 years (water years 1941-84, 1986-89), 696 ft^3/s, 504,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 5,640 ft^3/s, Mar. 29, 1982; maximum gage height, 10.89 ft Oct. 13, 1947, present datum; minimum flow consists of leakage estimated as 10 ft^3/s for many days in 1967-1984; no flow for some days during 1984 - 1989; minimum gage height, 2.85 ft Dec. 3, 1953; Oct. 9, 1963, and Sept. 9, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,380 ft^3/s Apr. 15; maximum gage height, 8.63 ft Sept. 19; no flow for some days; minimum gage height, 6.81 ft Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	506	252	.00	.00	.00	66	330	.00	177	225	361
2	.00	34	43	.00	.00	1.0	.00	445	.00	217	.00	290
3	.00	724	.00	.00	.00	290	.00	156	.00	605	.00	561
4	.00	634	.00	.00	.00	215	4.2	38	.00	909	315	271
5	.00	557	.00	.00	.00	126	.00	63	.00	1090	3.1	710
6	541	379	.00	.00	.00	6.3	.00	.00	.00	540	.00	922
7	352	390	.00	.00	.00	282	.00	.00	.00	571	2.8	576
8	54	71	102	.00	.00	226	.00	.00	.00	236	339	315
9	291	.00	.00	.00	.00	.00	.00	.00	.00	150	.00	232
10	79	118	.00	.00	.00	.00	.00	.00	.00	182	93	257
11	130	.00	.00	.00	.00	.00	.00	.00	.00	83	265	304
12	204	115	.00	.00	.00	.00	.00	.00	.00	101	150	258
13	105	.00	.00	.00	.00	.00	.00	.00	.00	.00	477	181
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	129	508	262
15	.00	.00	.00	.00	.00	.00	1380	401	.00	.00	628	295
16	281	.00	.00	.00	.00	.00	248	217	.00	.00	658	155
17	2.7	107	.00	1.8	.00	.00	590	.00	.00	226	581	319
18	.00	86	.00	.00	.00	.00	608	12	.00	206	471	618
19	.00	.00	.00	.00	.00	.00	235	.00	.00	351	313	764
20	.00	98	.00	.00	.00	.00	282	.00	.00	436	562	628
21	.00	228	125	.00	.00	.00	495	.00	.00	324	527	251
22	.00	468	330	.00	.00	.00	421	.00	.00	359	799	288
23	.00	260	2.7	.00	.00	.00	216	.00	.00	182	873	72
24	.00	.00	336	.00	.00	.00	150	.00	.00	182	630	403
25	.00	.00	274	.00	.00	.00	150	.00	.00	316	489	348
26	.00	191	274	.00	.00	.00	150	.00	.00	49	312	238
27	.00	26	14	.00	.00	.00	93	.00	.00	134	322	287
28	.00	7.0	.00	.00	.00	.00	67	.00	744	.00	347	288
29	.00	.00	.00	.00	---	.00	67	.00	438	62	337	152
30	.00	.00	.00	.00	---	.00	220	.00	525	166	446	227
31	.00	---	.00	.00	---	.00	---	.00	---	.00	346	---
TOTAL	2039.70	4999.00	1752.70	1.80	.00	1146.30	5442.20	1662.00	1707.00	7983.00	11018.90	10833
MEAN	65.8	167	56.5	.058	.000	37.0	181	53.6	56.9	258	355	361
MAX	541	724	336	1.8	.00	290	1380	445	744	1090	873	922
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	72
AC-FT	4050	9920	3480	3.6	.00	2270	10790	3300	3390	15830	21860	21490

CAL YR 1988 TOTAL 188042.70 MEAN 514 MAX 9590 MIN .00 AC-FT 373000
WTR YR 1989 TOTAL 48585.60 MEAN 133 MAX 1380 MIN .00 AC-FT 96370

02279000 WEST PALM BEACH CANAL AT WEST PALM BEACH, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.28	7.89	8.05	8.16	7.84	8.13	8.35	8.52	7.96	8.27	8.25	8.26
2	8.30	8.09	8.01	8.16	7.82	8.22	8.34	8.46	7.90	8.33	8.38	8.33
3	8.32	7.91	8.05	8.16	7.79	8.34	8.32	8.39	7.84	8.27	8.41	8.19
4	8.34	8.01	8.07	8.14	7.77	8.43	8.28	8.43	7.81	8.43	8.21	8.28
5	8.37	7.99	8.08	8.13	7.77	8.48	8.25	8.45	7.76	8.15	8.14	8.33
6	8.07	8.11	8.13	8.12	7.76	8.47	8.24	8.42	7.65	8.26	8.14	8.30
7	8.05	7.95	8.15	8.09	7.71	8.35	8.38	8.38	7.80	8.17	8.14	8.24
8	8.07	7.92	8.08	8.12	7.65	8.10	8.43	8.40	7.90	8.27	7.91	8.21
9	8.13	8.14	8.13	8.12	7.60	8.42	8.40	8.39	7.98	8.36	8.02	8.27
10	8.15	8.17	8.14	8.06	7.54	8.51	8.33	8.39	8.02	8.38	8.13	8.40
11	8.15	8.18	8.14	8.03	7.50	8.47	8.25	8.44	8.04	8.37	8.24	8.32
12	8.08	8.13	8.16	8.07	7.46	8.41	8.17	8.45	8.01	8.36	8.36	8.23
13	7.96	8.13	8.18	8.09	7.44	8.35	8.15	8.44	7.93	8.41	8.20	8.28
14	8.11	8.14	8.17	8.04	7.43	8.30	8.13	8.45	7.84	8.38	8.18	8.28
15	8.17	8.18	8.16	8.03	7.41	8.24	7.96	8.40	7.80	8.31	8.21	8.21
16	8.00	8.26	8.13	8.03	7.41	8.20	8.33	8.18	7.71	8.41	8.16	8.34
17	8.00	8.14	8.13	8.01	7.43	8.24	8.38	8.42	7.67	8.27	8.19	8.32
18	8.13	8.10	8.13	8.01	7.62	8.30	8.31	8.47	7.65	8.28	8.20	8.27
19	8.15	8.21	8.11	8.03	7.79	8.30	8.38	8.48	7.61	8.26	8.26	8.33
20	8.17	8.12	8.08	8.03	7.88	8.30	8.41	8.44	7.52	8.23	8.27	8.22
21	8.18	8.13	8.16	8.03	7.95	8.30	8.26	8.42	7.50	8.28	8.34	8.32
22	8.18	8.08	8.15	8.12	8.05	8.28	8.41	8.39	7.54	8.19	8.27	8.26
23	8.18	8.11	8.13	8.16	7.97	8.18	8.50	8.35	7.51	8.33	8.34	8.25
24	8.17	8.21	8.06	8.14	7.97	8.16	8.51	8.32	7.57	8.41	8.29	8.19
25	8.14	8 23	7.99	8.12	7.96	8.15	8.51	8.21	7.63	8.28	8.22	8.21
26	8.13	8.11	7.88	8.09	7.95	8.13	8.48	8.16	7.77	8.35	8.37	8.36
27	8.12	8.06	7.87	8.02	7.91	8.11	8.44	8.13	8.04	8.30	8.28	8.37
28	8.10	8.13	8.09	7.95	7.98	8.04	8.46	8.13	8.03	8.32	8.29	8.34
29	8.07	8.13	8.15	7.91	---	7.97	8.44	8.13	8.23	8.35	8.34	8.36
30	8.03	8.17	8.16	7.90	---	7.91	8.41	8.10	8.08	8.27	8.42	8.34
31	8.03	---	8.16	7.87	---	8.00	---	7.98	---	8.35	8.28	---
MEAN	8.14	8.10	8.10	8.06	7.73	8.25	8.34	8.35	7.81	8.31	8.24	8.29
MAX	8.37	8.26	8.18	8.16	8.05	8.51	8.51	8.52	8.23	8.43	8.42	8.40
MIN	7.96	7.89	7.87	7.87	7.41	7.91	7.96	7.98	7.50	8.15	7.91	8.19

CAL YR 1988 MEAN 7.99 MAX 8.50 MIN 6.89
WTR YR 1989 MEAN 8.15 MAX 8.52 MIN 7.41

02280300 HILLSBORO CANAL BELOW S351, NEAR SOUTH BAY, FL

LOCATION.--Lat 26°42'00", long 80°42'45", in SW¼ sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, 15 ft from south bank, 200 ft downstream from North New River Canal, 1,000 ft downstream from gate structure S351 and pump station 2 at Lake Okeechobee, and 2.5 mi north of South Bay.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Digital water stage recorder and electromagnetic velocity meter. Prior to Oct. 1, 1986 water stage recorder at pump station 2 used for gage heights at this station. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharge: Apr. 6, July 1-7, 17-31. Records poor. Flow regulated by vertical lift gates and pump station at Lake Okeechobee. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, or by the operation of pump station 2 (negative figures indicate flow reversed). Discharge computed from continuous velocity record obtained from electromagnetic velocity meter.

AVERAGE DISCHARGE.--31 years, -20.8 ft^3/s, -15,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 948 ft^3/s May 5, 1966; maximum gage height, 14.09 ft Sept. 28, 1962; maximum daily reverse flow, 1,780 ft^3/s Mar. 30, 1970; minimum gage height, 6.98 ft observed Oct. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 827 ft^3/s June 3; maximum gage height, 12.94 ft Mar. 1; maximum daily reverse flow, 803 ft^3/s Sept. 24; minimum gage height, 8.69 ft Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	74	184	89	45	-11	213	---	772	16	-33	-138
2	41	76	206	93	40	-74	145	---	808	-13	-100	-145
3	33	46	216	109	42	-114	187	---	827	-58	-66	-86
4	93	7.2	207	129	49	-135	210	---	816	114	32	-90
5	185	-20	221	149	51	-68	123	---	788	19	48	-119
6	128	1.7	241	208	61	-11	---	---	588	-84	141	-74
7	94	-5.1	247	189	70	-54	---	---	584	-98	193	.00
8	113	19	204	195	71	-40	---	---	461	35	136	-228
9	106	92	201	158	72	-139	---	---	447	20	55	85
10	155	121	213	118	53	-92	---	700	526	108	86	81
11	248	104	221	13	44	-29	---	692	541	11	-36	-11
12	270	102	5.0	6.5	39	-25	---	702	537	117	-7.6	35
13	226	87	-52	.30	43	97	---	708	575	85	-232	-4.4
14	222	147	-5.0	1.3	59	164	---	702	599	52	-163	1.6
15	182	212	13	3.1	77	93	---	374	573	42	-8.2	-263
16	163	192	46	3.4	144	103	---	145	560	36	109	-254
17	140	183	110	3.2	205	76	---	439	565	248	-.70	-217
18	126	178	120	11	225	118	---	452	569	232	-10	-324
19	102	164	105	12	218	124	---	503	579	302	-123	-81
20	105	173	122	.90	171	100	---	626	533	26	-190	-15
21	88	116	91	-8.4	59	129	---	632	474	-145	-134	79
22	75	70	17	-71	-30	119	---	681	377	-114	-33	80
23	69	87	-7.4	-6.3	52	136	---	704	358	-94	-178	-616
24	70	129	3.0	-27	87	142	---	613	326	-94	161	-803
25	70	135	-.20	-27	74	157	---	647	258	-176	48	-739
26	69	119	1.0	5.9	62	146	---	677	217	-98	-16	-623
27	76	127	86	22	56	125	---	723	195	-66	.00	-348
28	89	135	130	45	50	179	---	695	96	-8.5	-148	-78
29	80	172	112	38	---	215	---	647	59	-79	81	-83
30	76	197	95	32	---	217	---	636	9.8	-64	157	.00
31	70	---	91	47	---	213	---	682	---	-151	261	---
TOTAL	3614	3240.8	3443.40	1541.90	2189	1861	---	---	14717.8	120.5	29.50	-4977.80
MEAN	117	108	111	49.7	78.2	60.0	---	---	491	3.89	.95	-166
MAX	270	212	247	208	225	217	---	---	827	302	261	85
MIN	33	-20	-52	-71	-30	-139	---	---	9.8	-176	-232	-803
AC-FT	7170	6430	6830	3060	4340	3690	---	---	29190	239	59	-9870

CAL YR 1988 TOTAL 33030.00 MEAN 90.2 MAX 565 MIN -632 AC-FT 65510

02280500 HILLSBORO CANAL BELOW S351, NEAR SOUTH BAY, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.28	11.47	11.31	11.58	11.13	11.82	11.82	11.15	11.52	10.86	11.29	11.24
2	11.36	11.67	11.39	11.56	11.18	11.03	11.68	10.64	11.50	10.36	11.32	11.16
3	11.22	11.50	11.54	11.45	11.21	11.47	11.96	10.62	11.36	10.21	11.08	11.80
4	10.92	11.61	11.59	11.36	11.15	11.24	12.27	11.13	11.33	10.71	10.89	11.28
5	11.16	10.76	11.52	11.33	11.24	10.46	11.97	11.26	11.22	10.70	11.14	11.71
6	11.11	11.21	11.46	11.45	11.25	10.63	10.67	12.01	11.23	10.83	10.87	11.39
7	10.88	11.19	11.58	11.52	11.41	11.81	11.41	12.21	11.43	10.92	10.80	11.72
8	10.89	10.72	11.48	11.61	11.39	10.96	11.56	12.18	11.34	10.72	11.06	11.22
9	10.81	10.70	11.39	11.55	11.45	11.08	11.50	12.03	11.29	10.32	11.09	11.69
10	10.79	10.78	11.42	11.59	11.54	10.54	12.00	11.94	11.35	10.47	11.10	11.73
11	10.93	10.49	11.59	11.81	11.49	10.12	12.52	11.98	11.27	11.03	11.46	11.66
12	11.15	10.48	11.70	11.73	11.57	9.65	12.59	11.99	11.16	11.06	11.17	11.54
13	11.18	10.46	11.30	11.67	11.50	10.40	12.50	11.85	11.10	11.17	11.53	11.41
14	11.29	10.42	11.07	11.57	11.40	11.48	12.54	11.88	11.05	11.12	11.75	10.99
15	11.36	10.56	11.15	11.42	11.44	11.50	11.42	11.58	11.00	11.13	11.21	11.02
16	11.48	10.70	11.22	11.24	11.80	11.41	10.67	11.02	10.94	11.12	11.05	10.99
17	11.55	10.79	11.23	11.17	12.29	11.56	10.83	11.74	10.98	11.14	11.18	11.09
18	11.64	10.81	11.17	11.06	12.61	11.75	10.85	11.98	11.01	11.13	11.84	10.21
19	11.63	10.68	11.01	11.00	12.74	11.82	9.94	12.07	11.03	11.40	12.28	10.18
20	11.76	10.62	11.09	11.03	12.65	11.72	11.39	12.01	11.10	11.64	11.93	10.20
21	11.84	10.82	11.27	11.05	12.31	11.56	11.48	11.86	11.18	10.79	11.45	11.00
22	11.82	11.24	11.46	11.44	11.33	11.55	11.35	11.86	11.22	10.22	11.20	11.13
23	11.81	11.07	11.00	11.37	11.59	11.60	10.85	11.91	11.23	10.32	10.85	11.48
24	11.77	10.34	10.65	10.86	12.34	11.69	11.19	11.91	11.17	10.79	10.79	10.89
25	11.74	10.69	10.38	10.89	12.38	11.67	11.74	11.91	11.15	10.86	10.79	10.25
26	11.67	10.76	10.21	10.88	12.48	11.54	11.59	11.82	11.11	10.58	10.77	9.29
27	11.58	10.77	10.27	10.98	12.40	11.41	11.46	11.79	11.08	10.70	10.91	10.95
28	11.51	10.90	10.84	11.13	12.53	11.46	11.65	11.72	11.14	11.15	11.09	11.94
29	11.35	10.97	11.12	11.01	---	11.67	12.00	11.68	10.96	10.97	10.83	11.41
30	11.39	11.13	11.27	10.88	---	11.62	11.66	11.59	10.95	10.92	10.46	11.29
31	11.37	---	11.41	10.85	---	11.63	---	11.53	---	10.99	11.40	---
MEAN	11.36	10.88	11.20	11.29	11.78	11.29	11.57	11.70	11.18	10.85	11.18	11.13
MAX	11.84	11.67	11.70	11.81	12.74	11.82	12.59	12.21	11.52	11.64	12.28	11.94
MIN	10.79	10.34	10.21	10.85	11.13	9.65	9.94	10.62	10.94	10.21	10.46	9.29

CAL YR 1988 MEAN 11.23 MAX 12.78 MIN 9.88
WTR YR 1989 MEAN 11.28 MAX 12.74 MIN 9.29

262358080055700 E-4 CANAL, CLINT-MOORE RD., BOCA RATON, FL

LOCATION.--Lat 26°23'58", long 80°05'57", in NW¼NW¼ sec.6, T.47 S., R.43 E., Palm Beach County, Hydrologic Unit 03090202, .5 mi west of Clint Moore Road from I-95 overpass in Boca Raton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily stage: May 24, July 28. Records fair. Station is part of a canal system operated and controlled by Lake Worth Drainage District.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.00 ft Nov. 4, 1987; minimum, 2.33 ft May 14-16, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.80 ft Sept. 18; minimum 2.33 ft May 14-16.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.34	3.59	4.31	3.98	4.04	3.19	3.61	3.36		---	4.09	4.35
2	4.32	3.60	4.28	3.98	3.93	3.29	3.53	3.36		---	4.02	4.35
3	4.29	3.70	4.28	3.95	3.81	3.53	3.46	3.33		---	3.93	4.36
4	4.25	4.21	4.28	3.92	3.69	4.11	3.40	3.24		---	3.88	4.34
5	4.23	4.32	4.26	3.88	3.60	4.15	3.39	3.21		---	3.81	4.32
6	4.35	4.30	4.23	3.86	3.51	4.17	3.38	3.17		---	3.77	4.28
7	4.36	4.29	4.27	3.82	3.42	4.23	3.35	3.15		---	3.70	4.24
8	4.34	4.29	4.28	3.80	3.36	4.21	3.27	3.09		---	3.67	4.19
9	4.33	4.30	4.26	3.77	3.28	4.23	3.22	2.99		---	3.67	4.17
10	4.31	4.28	4.23	3.71	3.22	4.24	3.16	2.92		---	3.68	4.21
11	4.29	4.25	4.22	3.75	3.20	4.24	3.08	2.82		---	3.85	4.23
12	4.25	4.20	4.19	3.79	3.19	4.25	3.03	2.78		---	3.93	4.21
13	4.23	4.16	4.15	3.75	3.16	4.25	2.98	2.72		---	4.07	4.14
14	4.21	4.15	4.09	3.72	3.05	4.25	2.93	2.44		---	4.19	4.09
15	4.17	4.13	4.05	3.71	2.99	4.24	2.99	2.33		---	4.30	4.09
16	4.16	4.13	4.03	3.68	2.92	4.22	3.18	2.33		---	4.33	4.07
17	4.14	4.16	4.01	3.67	2.87	4.20	3.32	2.62		---	4.36	4.06
18	4.12	4.30	4.00	3.68	2.87	4.21	3.59	2.90		---	4.35	4.23
19	4.09	4.28	4.00	3.70	2.86	4.20	3.62	2.88		---	4.39	4.51
20	4.06	4.27	3.97	3.72	2.86	4.19	3.65	2.86		---	4.51	4.44
21	4.02	4.27	4.13	3.78	2.82	4.15	3.76	2.85		---	4.49	4.41
22	3.98	4.25	4.26	4.00	2.77	4.15	3.81	2.82		---	4.47	4.38
23	3.94	4.21	4.24	4.06	2.82	4.14	3.80	2.76		---	4.47	4.39
24	3.90	4.16	4.20	4.05	2.83	4.13	3.76	2.88		---	4.45	4.37
25	3.80	4.14	4.20	4.06	2.90	4.11	3.63	---		---	4.43	4.36
26	3.76	4.12	4.18	4.08	2.95	4.03	3.54	---		---	4.40	4.36
27	3.72	4.09	4.15	4.10	2.98	3.98	3.43	---		---	4.39	4.35
28	3.68	4.04	4.12	4.09	2.98	3.88	3.35	---		4.16	4.37	4.33
29	3.67	3.97	4.10	4.10	---	3.79	3.28	---		4.11	4.34	4.31
30	3.64	4.16	4.04	4.12	---	3.72	3.29	---		4.10	4.32	4.28
31	3.60	---	3.99	4.10	---	3.66	---	---		4.12	4.35	---
MEAN	4.08	4.14	4.16	3.88	3.17	4.04	3.39	---		---	4.16	4.28
MAX	4.36	4.32	4.31	4.12	4.04	4.25	3.81	---		---	4.51	4.51
MIN	3.60	3.59	3.97	3.67	2.77	3.19	2.93	---		---	3.67	4.06

CAL YR 1988 MEAN 4.25 MAX 4.90 MIN 2.79

262337080074800 E-3 CANAL AT 51ST STREET, BOCA RATON, FL

LOCATION.--Lat 26°23'37", long 80°07'48", in NE¼NW¼ sec.11, T.47 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, 2.2 mi west of I-95, Yamato Rd. exit in Boca Raton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 adjustment of 1972.

REMARKS.--Estimated daily gage heights: Oct. 25 to Nov. 3 and Jan. 5-11. Records fair. Station is part of a canal system operated by Lake Worth Drainage District.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 12.82 ft May 4, 1982; minimum, 8.38 ft March 12, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.32 ft Aug. 20; minimum, 8.40 ft Jan. 8 (estimated).

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.60	8.46	9.19	9.54	9.66	9.73	9.46	9.59	9.33	9.86	9.33	9.73
2	9.49	8.44	9.41	9.22	9.66	9.69	9.44	9.60	9.29	10.07	9.26	9.73
3	9.27	8.42	9.47	8.89	9.66	9.79	9.46	9.56	9.24	10.00	9.19	9.70
4	9.06	8.97	9.33	8.63	9.62	9.72	9.56	9.53	9.13	9.86	9.12	9.68
5	9.02	9.24	9.14	8.55	9.60	9.40	9.59	9.53	9.02	9.78	9.06	9.66
6	9.16	9.27	9.31	8.50	9.54	9.28	9.55	9.53	8.96	9.73	9.00	9.60
7	9.55	9.25	9.53	8.45	9.57	9.60	9.52	9.53	9.33	9.79	8.92	9.59
8	9.53	9.21	9.63	8.40	9.60	9.63	9.53	9.52	9.52	9.75	8.85	9.57
9	9.47	9.15	9.66	8.45	9.60	9.69	9.53	9.50	9.42	9.78	8.83	9.59
10	9.40	9.09	9.66	8.50	9.60	9.61	9.52	9.49	9.32	9.74	8.79	9.58
11	9.32	9.03	9.65	8.53	9.59	9.56	9.50	9.47	9.18	9.71	8.86	9.55
12	9.22	8.97	9.51	8.61	9.58	9.54	9.51	9.47	9.08	9.69	8.97	9.52
13	9.13	8.96	9.42	8.96	9.58	9.50	9.55	9.48	9.22	9.69	9.04	9.49
14	9.02	8.93	9.40	9.21	9.58	9.46	9.58	9.54	9.35	9.73	9.15	9.49
15	8.94	8.87	9.38	9.30	9.57	9.45	9.64	9.58	9.43	9.70	9.47	9.51
16	8.91	8.85	9.38	9.40	9.57	9.54	9.62	9.61	9.46	9.64	9.77	9.48
17	8.87	8.82	9.41	9.44	9.57	9.53	9.62	9.52	9.44	9.62	10.02	9.44
18	8.85	8.86	9.48	9.45	9.58	9.50	9.69	9.47	9.35	9.77	9.95	9.48
19	8.85	8.92	9.52	9.45	9.58	9.49	9.65	9.42	9.28	9.69	9.89	9.84
20	8.80	8.94	9.56	9.44	9.58	9.50	9.59	9.40	9.25	9.63	10.25	9.83
21	8.77	8.90	9.71	9.46	9.58	9.51	9.58	9.36	9.17	9.55	10.23	9.79
22	8.76	8.88	9.77	9.58	9.60	9.54	9.58	9.33	9.44	9.63	10.03	9.72
23	8.66	8.86	9.73	9.57	9.66	9.54	9.55	9.46	9.51	9.63	9.84	9.66
24	8.61	8.82	9.72	9.56	9.65	9.51	9.51	9.50	9.51	9.60	9.67	9.58
25	8.58	8.77	9.70	9.58	9.64	9.49	9.49	9.49	9.51	9.58	9.54	9.51
26	8.56	8.73	9.67	9.59	9.63	9.48	9.56	9.47	9.48	9.54	9.70	9.49
27	8.53	8.64	9.64	9.63	9.62	9.46	9.56	9.46	9.48	9.49	9.77	9.42
28	8.55	8.61	9.62	9.66	9.64	9.45	9.55	9.43	9.53	9.44	9.75	9.35
29	8.54	8.60	9.61	9.66	---	9.46	9.55	9.41	9.57	9.37	9.70	9.28
30	8.50	8.73	9.60	9.66	---	9.50	9.56	9.39	9.67	9.37	9.66	9.24
31	8.48	---	9.59	9.66	---	9.51	---	9.37	---	9.38	9.67	---
MEAN	8.97	8.87	9.53	9.18	9.60	9.54	9.55	9.48	9.35	9.67	9.46	9.57
MAX	9.60	9.27	9.77	9.66	9.66	9.79	9.69	9.61	9.67	10.07	10.25	9.84
MIN	8.48	8.42	9.14	8.40	9.54	9.28	9.44	9.33	8.96	9.37	8.79	9.24

CAL YR 1988 MEAN 9.46 MAX 10.59 MIN 8.42
WTR YR 1989 MEAN 9.40 MAX 10.25 MIN 8.40

261952080074500 E-3 CANAL, SW 18TH ST., BOCA RATON, FL

LOCATION.--Lat 26°19'52", long 80°07'45", in NW¼ sec.35, T.47 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, .7 mi west, 1.5 mi south of I-95, Palmetto Park Rd. exit in Boca Raton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily stage: June 22-26. Records good. Station is part of a canal system operated and controlled by Lake Worth Drainage District.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 11.79 ft May 4, 1982; minimum, 6.66 ft May 30, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.12 ft Aug. 20; minimum, 8.11 ft Jan. 6.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.46	8.35	9.23	9.35	9.55	9.61	9.38	9.48	9.35	9.68	9.21	9.59
2	9.26	8.32	9.40	9.02	9.56	9.57	9.36	9.53	9.29	9.89	9.14	9.59
3	9.01	8.40	9.42	8.69	9.54	9.61	9.37	9.49	9.22	9.78	9.08	9.57
4	8.86	8.88	9.21	8.46	9.49	9.50	9.46	9.46	9.13	9.64	9.03	9.55
5	8.81	9.11	9.04	8.38	9.40	9.17	9.49	9.46	9.02	9.56	8.97	9.53
6	9.05	9.16	9.25	8.31	9.41	9.11	9.47	9.46	8.97	9.53	8.91	9.47
7	9.40	9.14	9.46	8.42	9.49	9.45	9.44	9.48	9.33	9.61	8.84	9.45
8	9.36	9.10	9.57	8.46	9.48	9.50	9.44	9.46	9.45	9.59	8.76	9.44
9	9.30	9.04	9.58	8.46	9.48	9.55	9.43	9.44	9.35	9.63	8.73	9.45
10	9.23	8.98	9.57	8.47	9.46	9.48	9.43	9.44	9.27	9.61	8.72	9.45
11	9.14	8.93	9.52	8.50	9.46	9.43	9.43	9.45	9.16	9.59	8.78	9.41
12	9.06	8.87	9.36	8.58	9.47	9.39	9.44	9.44	9.09	9.58	8.88	9.39
13	8.98	8.87	9.30	8.96	9.46	9.35	9.45	9.44	9.26	9.57	8.95	9.35
14	8.89	8.84	9.28	9.16	9.45	9.31	9.46	9.51	9.35	9.60	9.02	9.34
15	8.82	8.79	9.28	9.21	9.45	9.31	9.50	9.53	9.38	9.57	9.32	9.36
16	8.77	8.76	9.29	9.34	9.47	9.40	9.50	9.53	9.39	9.50	9.60	9.33
17	8.73	8.74	9.34	9.36	9.49	9.40	9.51	9.43	9.38	9.50	9.82	9.31
18	8.72	8.82	9.40	9.37	9.50	9.38	9.58	9.41	9.29	9.64	9.76	9.35
19	8.72	8.86	9.43	9.37	9.48	9.38	9.53	9.38	9.23	9.56	9.70	9.71
20	8.67	8.84	9.46	9.36	9.45	9.38	9.47	9.36	9.19	9.48	10.06	9.69
21	8.63	8.80	9.59	9.38	9.43	9.38	9.49	9.33	9.12	9.43	10.05	9.65
22	8.63	8.76	9.62	9.49	9.50	9.41	9.48	9.32	9.25	9.50	9.82	9.58
23	8.59	8.75	9.59	9.50	9.58	9.40	9.44	9.46	9.40	9.51	9.66	9.51
24	8.56	8.75	9.57	9.49	9.55	9.40	9.41	9.47	9.43	9.47	9.48	9.43
25	8.52	8.71	9.57	9.49	9.54	9.38	9.40	9.47	9.42	9.47	9.37	9.35
26	8.49	8.65	9.56	9.49	9.53	9.36	9.48	9.46	9.41	9.44	9.55	9.34
27	8.46	8.60	9.50	9.57	9.50	9.36	9.48	9.45	9.40	9.39	9.62	9.28
28	8.46	8.60	9.46	9.58	9.51	9.35	9.46	9.43	9.45	9.33	9.61	9.22
29	8.43	8.59	9.45	9.57	---	9.35	9.46	9.42	9.50	9.27	9.57	9.14
30	8.39	8.74	9.43	9.56	---	9.38	9.48	9.41	9.58	9.26	9.52	9.10
31	8.36	---	9.42	9.55	---	9.41	---	9.38	---	9.26	9.53	---
MEAN	8.83	8.79	9.42	9.09	9.49	9.40	9.46	9.44	9.30	9.53	9.32	9.43
MAX	9.46	9.16	9.62	9.58	9.58	9.61	9.58	9.53	9.58	9.89	10.06	9.71
MIN	8.36	8.32	9.04	8.31	9.40	9.11	9.36	9.32	8.97	9.26	8.72	9.10

CAL YR 1988 MEAN 9.27 MAX 10.02 MIN 8.32
WTR YR 1989 MEAN 9.29 MAX 10.06 MIN 8.31

02281400 HILLSBORO CANAL NEAR MARGATE, FL

LOCATION.--Lat 26°19'48", long 80°12'45", in NW¼ sec.36, T.47 S., R.41 E., Broward County, Hydrologic Unit 03090202, on north side of Hillsboro Road, 0.7 mi west of U.S. Highway 441, and 5.1 mi north of Margate.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1975 to current year.

GAGE.--Water-stage and electromagnetic velocity meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily stage: Apr. 10-12, discharge: Apr. 10-13. Records poor. Flow affected by regulation downstream at Deerfield Beach and upstream storage releases at control structure S-39.

AVERAGE DISCHARGE.--13 years (1977-89), 205 ft^3/s, 148,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 956 ft^3/s Mar. 11, 1986 (estimated); maximum gage height, 12.88 ft Apr. 25, 1979; maximum daily reverse flow, 247 ft^3/s Apr. 25, 1979; minimum gage height, 4.15 ft May 20, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 313 ft^3/s Nov. 4; maximum gage height, 8.91 ft Nov. 3; minimum daily discharge, 20 ft^3/s June 29; minimum gage height, 5.87 ft Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	129	108	111	201	102	167	83	204	37	155	47
2	132	140	172	99	203	127	257	89	209	44	171	45
3	125	198	182	105	278	125	253	159	185	66	170	58
4	117	313	154	87	207	127	262	146	153	119	187	78
5	103	220	148	96	206	164	237	140	136	142	166	85
6	125	165	191	92	210	193	177	128	117	133	150	55
7	252	173	191	103	208	113	266	108	46	101	144	67
8	115	170	178	105	212	78	278	126	59	72	126	66
9	78	178	179	114	216	120	273	125	45	73	49	86
10	100	143	186	119	228	220	280	124	30	71	56	101
11	113	127	164	89	244	221	280	113	67	51	50	84
12	115	138	47	82	239	232	280	106	78	91	86	97
13	122	137	134	143	230	216	250	112	143	115	67	121
14	127	145	187	199	247	224	227	100	183	108	83	110
15	119	139	175	204	260	227	146	91	193	109	102	97
16	110	139	193	191	250	229	69	81	177	115	83	68
17	98	133	198	177	251	179	94	95	165	100	65	56
18	92	65	192	149	261	194	181	111	157	82	44	58
19	90	116	203	183	265	245	121	132	148	93	74	150
20	86	70	175	213	266	252	146	152	134	153	140	70
21	75	92	115	129	255	233	79	169	107	107	107	34
22	64	135	118	213	193	245	94	187	112	124	103	84
23	73	179	62	188	190	227	133	195	136	135	87	100
24	86	126	83	268	235	230	182	204	80	139	71	96
25	88	102	82	267	228	237	178	192	41	140	65	72
26	93	178	95	268	238	232	177	191	60	139	61	77
27	100	181	131	272	223	236	180	186	49	143	66	89
28	94	142	117	246	162	242	170	177	25	144	56	83
29	112	181	117	263	---	253	165	177	20	174	46	87
30	116	125	142	241	---	264	120	165	36	153	39	97
31	118	---	126	198	---	224	---	168	---	141	39	---
TOTAL	3390	4479	4545	5214	6415	6211	5722	4332	3295	3414	2908	2418
MEAN	109	149	147	168	229	200	191	140	110	110	93.8	80.6
MAX	252	313	203	272	278	264	280	204	209	174	187	150
MIN	64	65	47	82	162	78	69	81	20	37	39	34
AC-FT	6720	8880	9020	10340	12720	12320	11350	8590	6540	6770	5770	4800

CAL YR 1988 TOTAL 78889 MEAN 216 MAX 759 MIN 33 AC-FT 156500
WTR YR 1989 TOTAL 52343 MEAN 143 MAX 313 MIN 20 AC-FT 103800

02281400 HILLSBORO CANAL NEAR MARGATE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.43	7.15	7.92	7.16	7.70	8.26	7.42	7.57	6.35	7.61	7.18	7.40
2	7.61	7.71	7.01	7.26	7.68	8.20	7.18	7.27	7.14	7.85	6.82	7.62
3	7.83	7.40	7.42	7.34	7.00	8.40	7.25	7.29	7.47	8.13	6.76	7.96
4	7.91	7.98	7.71	7.44	6.78	7.71	7.25	7.35	7.55	8.08	7.24	8.14
5	7.30	7.97	7.10	7.50	7.01	7.08	7.42	7.39	7.46	8.11	7.44	8.10
6	7.74	7.98	6.95	7.44	7.12	7.32	7.16	7.44	7.42	8.07	7.41	8.20
7	8.14	7.53	7.27	7.48	7.16	8.02	7.26	7.46	7.74	8.04	7.53	8.11
8	7.80	6.66	7.25	7.39	7.17	7.87	7.31	7.40	8.15	7.81	7.86	7.80
9	7.32	6.72	7.07	7.39	7.15	7.40	7.40	7.40	8.11	7.70	7.68	7.68
10	7.25	7.36	7.23	7.23	7.18	7.46	7.46	7.38	8.20	7.61	7.69	7.77
11	6.89	7.38	7.41	7.54	7.55	7.40	7.46	7.28	7.95	7.43	7.91	7.77
12	7.28	7.32	7.16	7.55	7.60	7.59	7.46	7.28	7.08	7.02	8.12	7.68
13	7.46	7.31	6.95	6.50	7.59	7.56	---	7.61	6.59	6.22	8.14	7.07
14	7.59	7.30	7.10	6.59	7.53	7.42	7.31	7.59	6.94	6.81	8.15	7.10
15	7.61	7.36	7.39	7.22	7.19	7.43	7.32	7.33	7.63	7.16	8.18	7.38
16	7.64	7.44	7.53	7.34	7.01	7.41	7.21	7.47	7.54	7.24	8.06	7.28
17	7.63	7.44	7.59	7.11	6.96	7.50	7.50	7.21	7.55	7.39	8.08	7.38
18	7.76	7.77	7.57	7.53	7.09	7.26	8.18	7.07	7.65	7.66	7.94	7.80
19	7.27	7.91	7.67	7.04	7.08	7.29	7.84	7.22	7.61	8.07	8.10	8.07
20	7.11	7.97	7.63	7.05	7.11	7.39	7.32	7.27	7.31	7.85	8.10	7.68
21	7.19	7.77	7.80	7.33	7.22	7.56	7.90	7.49	7.33	7.83	8.07	7.78
22	7.31	7.88	7.64	7.23	7.32	7.47	7.88	7.45	7.65	8.08	8.04	7.74
23	7.35	7.95	7.16	7.23	7.22	7.26	7.49	7.33	7.57	7.93	8.14	7.27
24	7.35	7.41	7.45	6.84	7.18	6.99	7.51	7.20	7.58	7.75	8.12	7.11
25	7.37	6.66	7.82	6.89	7.30	7.13	7.31	6.92	7.42	7.87	8.04	7.00
26	7.24	6.75	7.47	7.29	7.49	7.19	7.36	6.77	7.20	7.63	8.22	7.93
27	7.18	7.05	7.08	7.48	7.53	7.18	7.34	6.64	7.26	7.43	8.15	8.22
28	7.23	7.14	7.04	7.33	7.57	7.14	7.32	6.58	7.03	6.99	7.99	7.47
29	7.15	7.03	7.00	6.99	---	7.27	7.35	6.48	6.91	7.07	7.70	7.21
30	7.11	7.59	7.20	7.47	---	7.38	7.51	6.35	7.15	7.06	7.62	7.87
31	7.06	---	7.41	7.74	---	7.45	---	6.24	---	7.44	7.51	---
MEAN	7.42	7.43	7.35	7.26	7.27	7.48	---	7.18	7.42	7.58	7.81	7.65
MAX	8.14	7.98	7.92	7.74	7.70	8.40	---	7.61	8.20	8.13	8.22	8.22
MIN	6.89	6.66	6.95	6.50	6.78	6.99	---	6.24	6.35	6.22	6.76	7.00

CAL YR 1988 MEAN 7.49 MAX 8.22 MIN 5.56

02281468 LATERAL 47 CANAL AT BOCA RATON, FL

LOCATION.--Lat 26°21'26", long 80°09'14", in SW¼ sec.32, T.47 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, on south bank at Powerline Road, 1.2 mi south of State Highway 808 and 1.9 mi west of Interstate Highway 95 in Boca Raton, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder and electromagnetic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Oct. 5, Dec. 1. Records fair. Canal system operated by Lake Worth Drainage District along with backpumps operated by City of Boca Raton, FL.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 63 ft^3/s May 2; maximum gage height, 10.51 ft Mar. 3; maximum daily reverse flow, 32 ft^3/s Aug. 12; minimum gage height, 8.69 ft Oct. 27, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-.49	5.4	5.7	24	28	40	26	58	27	17	2.5	1.7
2	-.41	4.8	11	9.6	27	38	33	63	30	23	4.7	1.4
3	5.9	4.0	25	8.6	25	38	33	57	23	41	4.5	2.4
4	9.5	2.5	8.6	5.5	26	36	35	59	26	41	3.9	1.8
5	9.5	3.4	16	3.2	26	39	36	48	25	29	3.3	-.14
6	---	2.6	24	1.7	27	37	36	41	19	29	.60	2.7
7	---	5.9	8.8	1.0	29	38	36	41	-1.0	24	9.0	.78
8	---	6.7	11	.56	29	40	38	55	-4.7	23	4.5	-2.5
9	---	.13	13	4.3	26	42	39	54	-3.0	22	-5.6	-5.9
10	---	-.03	13	7.1	26	42	38	52	6.9	35	-16	.53
11	---	.06	11	7.2	27	43	38	50	10	35	-29	1.9
12	.26	-.06	24	16	28	43	38	50	14	29	-32	-.66
13	1.8	-.30	30	30	30	38	41	48	-.04	9.0	-23	-.65
14	7.1	4.3	27	30	32	36	45	31	-3.1	6.2	-10	-7.8
15	1.3	8.9	27	30	33	40	42	29	.42	6.1	-1.6	-8.1
16	.02	9.2	28	29	31	33	41	21	6.9	11	14	-7.9
17	5.4	8.5	30	27	33	30	34	32	18	.95	21	-7.8
18	4.7	7.7	30	24	33	30	36	24	22	1.8	22	-11
19	2.9	3.7	30	26	31	32	34	31	36	5.7	16	-16
20	.08	3.1	31	26	30	31	36	33	41	4.7	13	-13
21	-.61	3.7	33	27	30	30	41	34	33	5.4	23	-4.3
22	-.44	3.9	33	25	31	35	46	36	28	1.5	30	-.40
23	-.32	2.9	32	25	32	23	40	47	40	4.5	21	-4.7
24	3.4	2.1	30	25	31	11	46	52	38	5.9	22	-4.7
25	8.3	1.6	30	24	31	13	39	30	38	6.1	15	-8.5
26	4.5	1.8	31	25	31	21	44	24	38	8.4	14	-8.2
27	.20	1.8	31	25	31	23	45	23	38	11	19	-4.4
28	-.21	4.6	30	31	34	33	46	17	37	11	16	-1.2
29	2.3	7.4	25	27	---	36	58	14	37	3.9	15	-.42
30	1.4	7.7	18	18	---	32	47	23	29	-1.0	7.3	1.3
31	4.2	---	27	14	---	27	---	25	---	1.7	2.4	---
TOTAL	---	118.00	724.1	576.76	828	1030	1187	1202	649.38	451.85	186.50	-103.76
MEAN	---	3.93	23.4	18.6	29.6	33.2	39.6	38.8	21.6	14.6	6.02	-3.46
MAX	---	9.2	33	31	34	43	58	63	41	41	30	2.7
MIN	---	-.30	5.7	.56	25	11	26	14	-4.7	-1.0	-32	-16
AC-FT	---	234	1440	1140	1640	2040	2350	2380	1290	896	370	-206

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02281468 LATERAL 47 CANAL AT BOCA RATON, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.75	8.77	9.65	9.71	10.05	10.28	10.05	9.94	9.70	10.00	9.36	9.69
2	9.38	8.75	9.75	9.24	10.07	10.18	10.03	9.98	9.63	10.19	9.31	9.70
3	9.13	8.86	9.73	9.00	10.03	10.27	10.03	9.96	9.56	10.14	9.25	9.69
4	8.98	9.11	9.36	8.87	10.06	10.24	10.08	9.95	9.48	10.04	9.19	9.66
5	8.91	9.25	9.31	8.83	10.02	10.06	10.14	9.93	9.38	9.98	9.13	9.64
6	9.12	9.29	9.66	8.80	10.01	9.97	10.12	9.93	9.37	9.95	9.09	9.58
7	9.45	9.28	9.81	8.81	10.07	10.11	10.10	9.95	9.63	9.96	9.03	9.57
8	9.42	9.25	9.90	8.83	10.07	10.14	10.08	9.93	9.65	9.85	8.97	9.54
9	9.36	9.20	9.90	8.84	10.05	10.18	10.08	9.92	9.56	9.86	8.95	9.56
10	9.30	9.16	9.89	8.87	10.04	10.15	10.07	9.93	9.47	9.83	8.93	9.56
11	9.22	9.12	9.86	8.90	10.06	10.13	10.06	9.92	9.39	9.80	8.98	9.52
12	9.13	9.09	9.75	9.13	10.06	10.12	10.03	9.89	9.48	9.79	9.05	9.51
13	9.05	9.09	9.70	9.57	10.07	10.10	9.97	9.89	9.73	9.77	9.10	9.47
14	8.98	9.08	9.69	9.69	10.10	10.07	9.94	9.93	9.77	9.80	9.17	9.46
15	8.94	9.07	9.70	9.75	10.09	10.05	9.97	9.96	9.79	9.79	9.45	9.47
16	8.91	9.08	9.71	9.82	10.08	10.09	9.96	9.99	9.78	9.74	9.73	9.44
17	8.87	9.09	9.74	9.85	10.09	10.09	9.98	9.92	9.71	9.73	9.97	9.41
18	8.86	9.19	9.78	9.87	10.08	10.08	10.02	9.90	9.59	9.82	9.90	9.46
19	8.85	9.14	9.81	9.88	10.07	10.09	9.94	9.88	9.55	9.71	9.84	9.81
20	8.82	9.11	9.84	9.88	10.04	10.10	9.90	9.86	9.50	9.64	10.21	9.79
21	8.80	9.08	9.96	9.92	10.04	10.12	9.94	9.84	9.45	9.58	10.19	9.74
22	8.79	9.06	9.97	9.99	10.07	10.15	9.93	9.82	9.63	9.63	9.98	9.67
23	8.76	9.03	9.92	9.98	10.11	10.16	9.88	9.89	9.65	9.64	9.81	9.61
24	8.75	9.02	9.90	9.98	10.11	10.15	9.86	9.88	9.64	9.62	9.64	9.53
25	8.72	9.01	9.90	9.99	10.12	10.15	9.84	9.87	9.64	9.61	9.51	9.46
26	8.71	8.99	9.89	10.00	10.12	10.17	9.89	9.84	9.64	9.57	9.56	9.45
27	8.70	8.97	9.86	10.06	10.10	10.16	9.89	9.81	9.65	9.53	9.73	9.39
28	8.70	8.97	9.83	10.07	10.13	10.15	9.89	9.80	9.67	9.48	9.72	9.32
29	8.72	8.98	9.82	10.07	---	10.16	9.90	9.79	9.69	9.42	9.68	9.26
30	8.77	9.21	9.82	10.07	---	10.10	9.92	9.77	9.81	9.40	9.63	9.22
31	8.77	---	9.82	10.07	---	10.06	---	9.74	---	9.41	9.64	---
MEAN	8.99	9.08	9.78	9.56	10.07	10.13	9.98	9.89	9.61	9.75	9.48	9.54
MAX	9.75	9.29	9.97	10.07	10.13	10.28	10.14	9.99	9.81	10.19	10.21	9.81
MIN	8.70	8.75	9.31	8.80	10.01	9.97	9.84	9.74	9.37	9.40	8.93	9.22

WTR YR 1989 MEAN 9.65 MAX 10.28 MIN 8.70

02281500 HILLSBORO CANAL NEAR DEERFIELD BEACH, FL

LOCATION.--Lat 26°19'39", long 80°07'52", SW¼ sec.35, T.47 S., R.42 E., Broward County, Hydrologic Unit 03090202, at upstream end of lock chamber, 2 mi west of Deerfield Beach, and 4.4 mi east of State Highway 7.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

REVISED RECORDS.--WDR FL-78-2A: 1974-1975.

GAGE.--Water-stage recorder, sharp crested weir, and gate-opening indicator. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Auxiliary water-stage recorder at downstream end of lock. See WSP 1905 volume 2 for history of changes.

REMARKS.--No estimated daily stage and discharge. Records poor. Flow regulated at station for irrigation and drainage and by flood-control levee, 11 mi upstream of station. Lock chamber not used for navigation. Pumps upstream of station divert water for irrigation during growing season. Since September 1952, flow materially affected by control structure 39, 11 mi upstream. Discharge computed from relation between discharge, head, submergence, and gate openings.

COOPERATION.--Stoplog and sluice-gate operation records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--48 years (water years 1941-86, 88, 89), 307 ft^3/s, 222,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,880 ft^3/s May 4, 1983; maximum gage height, 12.58 ft Dec. 24, 1957; no flow for several days in 1939, 1940, and 1959; minimum gage height, 0.77 ft Aug. 17, 1970.

EXTERMES FOR CURRENT YEAR.--Maximum daily discharge, 692 ft^3/s Nov. 3; maximum gage height, 8.42 ft Mar. 1; minimum daily discharge, 20 ft^3/s, estimated leakage, many days during year; minimum gage height, 3.85 ft Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	20	20	20	146	20	20	20	20	20	20
2	20	20	20	20	20	100	20	20	20	20	20	20
3	20	692	20	20	201	113	20	20	20	118	20	20
4	20	691	20	20	20	95	20	20	20	221	20	104
5	20	392	20	20	20	20	20	20	20	255	20	36
6	379	20	20	20	20	20	20	20	20	228	20	20
7	644	20	20	20	20	20	20	20	20	20	20	20
8	192	20	20	20	20	20	20	20	58	20	20	20
9	20	20	20	20	20	20	20	20	20	20	20	20
10	20	20	20	20	20	20	20	20	20	20	20	20
11	20	20	20	20	20	20	20	20	20	20	20	20
12	20	20	20	20	20	20	20	20	20	20	81	20
13	20	20	20	20	20	20	20	20	20	20	65	20
14	20	20	20	20	20	20	20	20	20	20	111	20
15	20	20	20	20	20	20	20	20	20	20	237	20
16	20	20	20	20	20	20	20	20	20	20	182	20
17	20	20	20	20	20	20	20	20	20	20	119	20
18	20	20	20	20	20	20	208	20	20	20	20	42
19	20	273	20	20	20	20	20	20	20	20	151	423
20	20	20	20	20	20	20	20	20	20	224	589	58
21	20	20	136	20	20	20	20	20	20	20	335	20
22	20	205	204	134	20	20	20	20	20	108	394	20
23	20	284	20	20	20	20	20	20	20	20	231	20
24	20	20	20	20	20	20	20	20	20	20	175	20
25	20	20	20	20	20	20	20	20	20	20	158	20
26	20	20	20	20	20	20	20	20	20	20	93	20
27	20	20	21	20	20	20	20	20	20	20	87	20
28	20	20	20	20	20	20	20	20	20	20	78	20
29	20	20	20	20	---	20	20	20	20	20	20	20
30	20	20	20	20	---	20	20	20	20	20	20	20
31	20	---	20	20	---	20	---	20	---	20	20	---
TOTAL	1775	3017	921	734	741	994	788	620	638	1654	3386	1163
MEAN	57.3	101	29.7	23.7	26.5	32.1	26.3	20.0	21.3	53.4	109	38.8
MAX	644	692	204	134	201	146	208	20	58	255	589	423
MIN	20	20	20	20	20	20	20	20	20	20	20	20
AC-FT	3520	5980	1830	1460	1470	1970	1560	1230	1270	3280	6720	2310

CAL YR 1988	TOTAL	132161	MEAN	361	MAX	1700	MIN 20	AC-FT 262100
WTR YR 1989	TOTAL	16431	MEAN	45.0	MAX	692	MIN 20	AC-FT 32590

02281500 HILLSBORO CANAL NEAR DEERFIELD BEACH, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.26	7.03	7.81	7.05	7.52	8.08	7.27	7.41	6.06	7.43	6.95	7.16
2	7.48	7.60	6.86	7.16	7.50	8.03	6.94	7.11	6.87	7.67	6.56	7.38
3	7.71	6.54	7.28	7.25	6.47	8.22	7.01	7.05	7.23	7.93	6.49	7.71
4	7.79	7.19	7.59	7.33	6.58	7.53	7.01	7.10	7.32	7.85	6.97	7.88
5	7.18	7.67	6.96	7.39	6.82	6.89	7.20	7.14	7.24	7.87	7.17	7.85
6	7.38	7.89	6.76	7.33	6.94	7.13	7.03	7.20	7.21	7.83	7.15	7.95
7	7.59	7.40	7.09	7.37	6.98	7.88	7.01	7.24	7.58	7.81	7.27	7.85
8	7.59	6.52	7.09	7.27	7.00	7.74	7.09	7.15	7.98	7.61	7.61	7.54
9	7.19	6.56	6.89	7.28	6.98	7.24	7.17	7.15	7.95	7.49	7.47	7.41
10	7.13	7.22	7.05	7.13	7.00	7.27	7.21	7.14	8.04	7.40	7.48	7.50
11	6.77	7.24	7.26	7.43	7.38	7.20	7.20	7.04	7.77	7.23	7.71	7.50
12	7.15	7.18	7.07	7.45	7.42	7.38	7.16	7.03	6.87	6.80	7.89	7.41
13	7.33	7.18	6.82	6.28	7.40	7.36	7.13	7.36	6.34	6.00	7.92	6.78
14	7.44	7.16	6.92	6.31	7.32	7.21	7.08	7.34	6.66	6.61	7.92	6.82
15	7.47	7.22	7.23	7.04	6.95	7.22	7.12	7.12	7.36	6.96	7.93	7.11
16	7.50	7.31	7.37	7.17	6.77	7.19	7.07	7.32	7.28	7.04	7.82	7.02
17	7.50	7.31	7.43	6.94	6.71	7.32	7.33	7.01	7.30	7.19	7.85	7.12
18	7.63	7.66	7.41	7.36	6.86	7.07	7.92	6.84	7.41	7.47	7.72	7.55
19	7.15	7.68	7.49	6.83	6.84	7.08	7.67	6.97	7.36	7.89	7.84	7.71
20	6.99	7.87	7.46	6.83	6.86	7.16	7.12	7.03	7.07	7.60	7.69	7.41
21	7.07	7.67	7.64	7.18	6.99	7.34	7.75	7.25	7.12	7.64	7.73	7.53
22	7.20	7.67	7.48	6.84	7.15	7.25	7.72	7.21	7.43	7.87	7.68	7.46
23	7.. 3	7.72	7.05	7.03	7.06	7.04	7.30	7.08	7.34	7.71	7.83	6.99
24	7.23	7.29	7.33	6.57	6.97	6.77	7.29	6.95	7.38	7.53	7.85	6.83
25	7.24	6.50	7.71	6.60	7.10	6.91	7.09	6.66	7.24	7.65	7.77	6.73
26	7.11	6.58	7.35	7.02	7.28	6.98	7.13	6.50	7.01	7.41	7.97	7.66
27	7.05	6.89	6.94	7.23	7.31	6.96	7.11	6.37	7.08	7.22	7.90	7.92
28	7.10	7.02	6.90	7.08	7.38	6.91	7.10	6.32	6.85	6.76	7.73	7.16
29	7.01	6.88	6.87	6.73	---	7.04	7.13	6.20	6.73	6.81	7.45	6.91
30	6.98	7.47	7.05	7.26	---	7.14	7.32	6.07	6.98	6.83	7.38	7.57
31	6.92	---	7.28	7.56	---	7.25	---	5.95	---	7.23	7.27	---
MEAN	7.27	7.24	7.21	7.07	7.06	7.28	7.22	6.95	7.20	7.37	7.55	7.38
MAX	7.79	7.89	7.81	7.56	7.52	8.22	7.92	7.41	8.04	7.93	7.97	7.95
MIN	6.77	6.50	6.76	6.28	6.47	6.77	6.94	5.95	6.06	6.00	6.49	6.73

CAL YR 1988 MEAN 6.78 MAX 7.89 MIN 2.59
WTR YR 1989 MEAN 7.23 MAX 8.22 MIN 5.95

02281501 HILLSBORO CANAL BELOW DEERFIELD LOCKS, NEAR DEERFIELD BEACH, FL

LOCATION.--Lat 26°19'39", long 80°07'51", in SW¼ sec.35, T.47 S., R.42 E., Broward County, Hydrologic Unit 03090202, at downstream end of lock chamber, 2 mi west of Deerfield Beach, and 4.4 mi east of State Highway 7.

DRAINAGE.--Indeterminate.

PERIOD OF RECORD.--July 1947 to December 1949 (incomplete), January 1950 to January 1958, December 1959 to current year (gage heights). Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to June 23, 1950, at site 500 ft downstream at same datum.

REMARKS.--Estimated daily stage: Mar. 8-14, May 5-21. Gage records water levels below lock and control structure. Stage is basically tidal, but is occasionally affected by control structure operation.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 11.70 ft, estimated, Oct 12, 1947; minimum, -1.78 ft Apr. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.45 ft Jan. 25; minimum, -1.25 ft June 2.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.40	1.39	.84	.48	1.32	1.51	1.51	1.46	.38	.96	.28	.65
2	1.35	1.37	.67	.39	1.28	1.51	1.43	1.46	.36	.91	.35	.78
3	1.36	1.92	.88	.43	1.60	1.68	1.48	1.52	.41	.91	.64	.96
4	1.18	1.90	.94	.60	1.46	1.50	1.50	1.66	.44	.92	.96	1.07
5	1.22	1.68	.98	.78	1.68	1.43	1.39	1.58	.46	.94	.99	.96
6	1.36	1.24	.87	.69	1.64	1.40	1.26	1.49	.45	.67	.99	.96
7	1.91	.92	.82	.52	1.53	1.59	1.25	1.32	.36	.64	.94	1.06
8	1.81	.74	.85	.45	1.35	1.63	1.21	1.50	.19	.55	.80	1.10
9	1.85	.71	.73	.37	1.37	1.69	1.26	1.29	.03	.51	.55	.99
10	1.74	.67	.78	.35	1.51	2.06	1.16	1.24	-.08	.52	.40	1.08
11	1.67	.64	.87	.22	1.62	2.26	1.19	1.27	.03	.51	.49	1.01
12	1.51	.82	.91	.40	1.66	2.17	1.42	1.27	.20	.47	.79	1.11
13	1.38	.89	.93	.60	1.73	2.00	1.57	1.24	.18	.41	1.00	1.05
14	1.39	.89	.96	1.41	1.46	1.89	1.69	1.00	.12	.36	1.06	1.02
15	1.50	.82	.92	1.38	1.46	1.72	1.67	.95	.24	.26	1.03	.95
16	1.58	.99	.87	1.22	1.39	1.69	1.60	.93	.35	.22	.96	.89
17	1.38	.77	.95	1.40	1.49	1.66	1.49	.81	.34	.30	.93	.87
18	1.37	.81	.84	1.33	1.73	1.61	1.59	.57	.34	.30	.83	1.08
19	1.37	1.00	.76	1.42	1.77	1.54	1.52	.54	.43	.19	.94	1.29
20	1.49	.76	.88	1.44	2.00	1.48	1.48	.55	.36	.42	1.33	1.08
21	1.44	.55	.68	1.65	1.96	1.43	1.58	.62	.30	.42	.98	1.16
22	1.44	.74	.63	2.08	1.71	1.33	1.75	---	.21	.37	.83	1.04
23	1.51	.63	.58	1.81	1.46	1.39	1.76	---	.28	.42	.72	.88
24	1.49	.50	.55	2.06	1.29	1.30	1.67	---	.35	.63	.62	.90
25	1.50	.82	.41	2.12	1.40	1.26	1.54	---	.29	.63	.58	.80
26	1.41	.96	.41	1.81	1.50	1.45	1.43	---	.38	.77	.57	.64
27	1.35	.86	.68	1.58	1.65	1.44	1.55	---	.43	.75	.70	.95
28	1.21	.76	.50	1.67	1.52	1.41	1.62	---	.53	.67	.55	1.07
29	1.14	.84	.45	1.37	---	1.40	1.59	---	.54	.64	.56	1.26
30	1.15	.95	.50	1.41	---	1.48	1.48	---	.75	.58	.58	1.16
31	1.24	---	.51	1.31	---	1.47	---	---	---	.39	.59	---
MEAN	1.44	.95	.75	1.12	1.56	1.59	1.49	---	.32	.56	.76	.99
MAX	1.91	1.92	.98	2.12	2.00	2.26	1.76	---	.75	.96	1.33	1.29
MIN	1.14	.50	.41	.22	1.28	1.26	1.16	---	-.08	.19	.28	.64

CAL YR 1988 MEAN 1.06 MAX 2.76 MIN .07

02282700 MIDDLE RIVER CANAL AT S-36, NEAR FORT LAUDERDALE, FL

LOCATION.--Lat 26°10'22", long 80°10'47", in NW¼ sec.20, T.49 S., R.42 E., Broward County, Hydrologic Unit 03090202, 20 ft from south bank, 120 ft upstream from salinity-control structure 36, 1.5 mi east of bridge on U.S. Highway 441, and 5 mi west of Fort Lauderdale.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1955 to September 1961 (gage heights), October 1961 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

GAGE.--Water-stage recorder and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Electromagnetic velocity meter and deflection vane recorder at same site prior to Oct. 1, 1985.

REMARKS.--No estimated daily stage and discharge. Records fair. Flow is at times affected by tide and occasionally reversed. Flow is regulated by operation of salinity-control structure 36. Discharge computed from the relationship of gate opening versus head difference.

COOPERATION.--Gage height and S-36 gate-operation records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--28 years, 60.9 ft^3/s, 44,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,490 ft^3/s Apr. 25, 1979; maximum gage height, 7.38 ft Dec. 27, 1958; maximum reverse flow, 61 ft^3/s Oct. 8, 1963; no flow for many days each year; minimum gage height, -0.53 ft June 28, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 188 ft^3/s July 2; maximum gage height, 4.70 ft Oct. 7-8, Nov. 4; no flow for many days; minimum gage height, 3.50 ft Feb. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	177	.00	.00	.00	163	15	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	188	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	120	.00	.00
4	119	127	.00	.00	.00	.00	.00	.00	.00	105	.00	.00
5	27	.00	.00	.00	.00	.00	.00	.00	.00	83	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	163	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	148	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	160	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	154	.00
21	.00	139	.00	.00	.00	.00	.00	.00	.00	110	170	.00
22	.00	21	.00	.00	.00	.00	.00	.00	.00	34	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	122	.00	33	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	43	.00	33	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	.00
28	.00	.00	.00	.00	137	.00	.00	.00	.00	32	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	32	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	119	32	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	33	.00	---
TOTAL	454.00	287.00	.00	.00	137.00	177.00	.00	165.00	119.00	1259.00	339.00	1.10
MEAN	14.6	9.57	.000	.000	4.89	5.71	.000	5.32	3.97	40.6	10.9	.037
MAX	160	139	.00	.00	137	177	.00	122	119	188	170	1.1
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	901	569	.00	.00	272	351	.00	327	236	2500	672	2.2

CAL YR 1988 TOTAL 22754.90 MEAN 62.2 MAX 1310 MIN .00 AC-FT 45130
WTR YR 1989 TOTAL 2938.10 MEAN 8.05 MAX 188 MIN .00 AC-FT 5830

02282700 MIDDLE RIVER CANAL AT S-36, NEAR FORT LAUDERDALE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.43	4.62	4.46	4.08	3.69	4.01	4.36	4.05	4.16	4.45	4.05	4.10
2	4.54	4.61	4.45	4.07	3.66	4.02	4.29	4.08	4.10	4.13	4.03	4.16
3	4.60	4.63	4.43	4.06	3.70	4.07	4.24	4.05	4.06	4.40	4.03	4.23
4	4.45	4.37	4.43	4.02	3.73	4.04	4.23	4.01	4.02	4.49	4.07	4.23
5	4.28	4.57	4.42	3.98	3.74	4.01	4.24	3.98	3.96	4.41	4.03	4.22
6	4.51	4.63	4.40	3.96	3.74	3.99	4.21	3.97	3.94	4.21	3.98	4.26
7	4.62	4.63	4.39	3.94	3.74	3.97	4.16	3.97	4.11	4.43	3.93	4.24
8	4.27	4.63	4.38	3.92	3.74	3.95	4.08	3.91	4.13	4.51	3.90	4.22
9	4.44	4.62	4.37	3.91	3.74	3.95	4.02	3.86	4.11	4.53	3.88	4.20
10	4.56	4.62	4.36	3.92	3.73	3.91	3.97	3.88	4.08	4.52	3.90	4.16
11	4.60	4.61	4.35	3.90	3.72	3.85	3.92	3.93	4.04	4.47	3.91	4.11
12	4.64	4.60	4.34	3.88	3.71	3.81	3.87	3.96	3.99	4.38	3.91	4.05
13	4.65	4.60	4.33	3.86	3.69	3.77	3.82	4.01	3.94	4.31	3.98	3.98
14	4.64	4.53	4.30	3.83	3.67	3.72	3.78	4.06	3.88	4.24	4.07	3.94
15	4.64	4.29	4.28	3.84	3.65	3.67	3.81	4.17	3.82	4.21	4.05	3.93
16	4.65	4.15	4.28	3.82	3.64	3.65	3.90	4.30	3.75	4.26	4.02	3.88
17	4.27	4.07	4.27	3.79	3.63	3.62	3.88	4.34	3.70	4.37	3.99	3.84
18	4.27	4.28	4.23	3.80	3.64	3.63	3.85	4.39	3.66	4.44	3.98	3.84
19	4.42	4.38	4.19	3.79	3.64	3.64	3.84	4.41	3.63	4.56	4.03	3.84
20	4.46	4.45	4.17	3.79	3.62	3.62	3.88	4.44	3.62	4.61	4.36	3.84
21	4.49	4.19	4.17	3.80	3.63	3.65	4.09	4.46	3.59	4.35	4.33	3.87
22	4.51	4.05	4.18	3.92	3.70	3.79	4.11	4.47	3.61	4.50	4.49	3.83
23	4.52	4.28	4.17	3.95	3.72	3.89	4.09	4.47	3.65	4.52	4.28	3.83
24	4.52	4.33	4.18	3.90	3.64	4.04	4.06	4.33	3.69	4.52	4.11	3.86
25	4.52	4.34	4.17	3.85	3.58	4.29	4.03	4.31	3.71	4.47	4.02	3.90
26	4.52	4.35	4.18	3.83	3.56	4.34	4.01	4.50	3.76	4.43	4.10	4.03
27	4.51	4.38	4.15	3.82	3.53	4.38	4.00	4.47	3.91	4.35	4.13	4.06
28	4.59	4.42	4.15	3.79	3.80	4.41	3.98	4.40	3.99	4.26	4.13	4.07
29	4.60	4.39	4.14	3.75	---	4.46	3.94	4.34	4.14	4.17	4.12	4.08
30	4.61	4.44	4.11	3.74	---	4.48	4.00	4.28	4.26	4.14	4.12	4.09
31	4.61	---	4.09	3.71	---	4.43	---	4.22	---	4.11	4.11	---
MEAN	4.51	4.44	4.27	3.88	3.68	3.97	4.02	4.19	3.90	4.38	4.07	4.03
MAX	4.65	4.63	4.46	4.08	3.80	4.48	4.36	4.50	4.26	4.61	4.49	4.26
MIN	4.27	4.05	4.09	3.71	3.53	3.62	3.78	3.86	3.59	4.11	3.88	3.83

CAL YR 1988 MEAN 4.35 MAX 4.65 MIN 2.62
WTR YR 1989 MEAN 4.12 MAX 4.65 MIN 3.53

02283200 PLANTATION ROAD CANAL AT S-33, NEAR FORT LAUDERDALE, FL

LOCATION.--Lat 26°08'05", long 80°11'42", in SW¼ sec.31, T.49 S., R.42 E., Broward County, Hydrologic Unit 03090202, 15 ft streamward from left bank, 130 ft upstream from salinity-control structure 33, 0.5 mi east of bridge on U.S. Highway 441, 3 mi above mouth, and 4 mi west of Fort Lauderdale.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1955 to February 1962 (gage heights), March 1962 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

GAGE.--Water-stage recorder, and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929. (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily discharge: Feb. 7, 28, Mar. 1-4, 7, 9, Apr. 4, June 29 to July 7, July 19-25, Aug. 19-24. Records fair except those for estimated discharge which are poor. Flow is at times affected by tide and is occasionally reversed. Flow is regulated by operation of salinity-control structure 33.

COOPERATION.--Gage readings were provided by South Florida Water Management District.

AVERAGE DISCHARGE.--26 years (water years 1963 - 86, 88, 89), 19.4 ft^3/s, 14,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 748 ft^3/s July 3, 4, 1988 estimated; maximum gage height, 6.16 ft Apr. 25, 1979; maximum reverse flow, 157 ft^3/s Sept. 8, 1956; no flow on some days each year; minimum gage height, -0.82 ft Mar. 4, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 232 ft^3/s Feb. 28 (estimated); maximum gage height, 4.06 ft June 29; no flow for many days; minimum gage height, 2.17 ft Feb. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	118	.00	.00	.00	117	.00	.00
2	.00	.00	.00	.00	.00	42	.00	.00	.00	69	.00	.00
3	.00	.00	.00	.00	.00	27	.00	.00	.00	41	.00	.00
4	.00	.00	.00	.00	.00	6.4	6.6	.00	.00	41	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	40	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	35	.00	.00
7	.00	.00	.00	.00	4.5	12	.00	.00	.00	13	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	7.3	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	12	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	31	78	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	60	88	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	62	47	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	58	33	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	51	17	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	232	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	8.0	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	44	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	236.50	212.70	6.60	.00	52.00	649.00	275.00	.00
MEAN	.000	.000	.000	.000	8.45	6.86	.22	.000	1.73	20.9	8.87	.000
MAX	.00	.00	.00	.00	232	118	6.6	.00	44	117	88	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	469	422	13	.00	103	1290	545	.00

CAL YR 1988 TOTAL 4564.20 MEAN 12.5 MAX 748 MIN .00 AC-FT 9050
WTR YR 1989 TOTAL 1431.80 MEAN 3.92 MAX 232 MIN .00 AC-FT 2840

02283200 PLANTATION ROAD CANAL AT S-33, NEAR FORT LAUDERDALE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.95	2.73	2.71	2.45	2.82	3.31	2.98	3.05	2.81	3.34	3.35	3.60
2	2.93	2.67	2.79	2.44	2.77	3.28	2.92	3.05	2.74	3.55	3.30	3.64
3	2.91	2.65	2.74	2.44	2.74	3.44	2.87	3.01	2.69	3.56	3.34	3.62
4	2.90	2.74	2.68	2.40	2.66	3.54	3.36	2.95	2.64	3.38	3.32	3.58
5	2.98	2.76	2.65	2.36	2.57	3.60	3.28	2.93	2.62	3.35	3.26	3.54
6	3.11	2.75	2.61	2.37	2.50	3.57	3.04	2.90	2.63	3.16	3.23	3.48
7	3.21	2.69	2.61	2.33	3.03	3.52	3.02	2.85	2.90	3.47	3.21	3.46
8	3.26	2.64	2.60	2.27	2.81	3.59	2.93	2.77	2.97	3.68	3.21	3.45
9	3.27	2.61	2.61	2.23	2.63	3.48	2.83	2.71	3.00	3.73	3.24	3.48
10	3.28	2.59	2.60	2.27	2.51	3.56	2.76	2.66	2.98	3.73	3.36	3.45
11	3.28	2.58	2.58	2.29	2.44	3.54	2.71	2.63	2.93	3.70	3.61	3.39
12	3.25	2.57	2.59	2.31	2.37	3.51	2.66	2.62	2.95	3.64	3.60	3.33
13	3.22	2.57	2.61	2.36	2.29	3.47	2.62	2.57	2.87	3.59	3.75	3.28
14	3.18	2.65	2.60	2.35	2.24	3.42	2.66	2.53	2.78	3.58	3.82	3.42
15	3.11	2.62	2.60	2.39	2.69	3.37	2.84	2.62	2.69	3.56	3.80	3.50
16	3.07	2.60	2.61	2.37	2.67	3.32	3.24	2.76	2.60	3.52	3.78	3.41
17	3.04	2.59	2.61	2.36	2.47	3.31	3.37	2.76	2.53	3.59	3.75	3.33
18	3.03	2.68	2.59	2.36	2.36	3.28	3.36	2.76	2.48	3.67	3.76	3.43
19	3.01	2.77	2.61	2.36	2.27	3.22	3.30	2.80	2.50	3.67	3.77	3.38
20	2.99	2.84	2.56	2.43	2.21	3.17	3.31	2.75	2.49	3.50	3.53	3.33
21	3.01	2.89	2.53	2.54	2.18	3.13	3.39	2.67	2.46	3.33	3.50	3.28
22	2.95	2.89	2.52	2.83	2.33	3.09	3.34	2.60	2.88	3.05	3.63	3.22
23	2.89	2.85	2.49	2.99	2.38	3.05	3.27	3.13	2.89	2.92	3.58	3.19
24	2.85	2.77	2.50	3.01	2.39	3.18	3.20	3.27	2.88	2.86	3.33	3.19
25	2.82	2.71	2.51	3.00	2.38	3.50	3.12	3.25	2.87	2.98	3.67	3.14
26	2.78	2.67	2.53	2.98	2.32	3.40	3.04	3.18	2.97	3.14	3.74	3.14
27	2.73	2.66	2.52	2.98	2.27	3.32	2.98	3.13	3.16	3.22	3.74	3.17
28	2.79	2.66	2.51	2.96	2.91	3.24	2.95	3.06	3.47	3.32	3.70	3.13
29	2.77	2.65	2.49	2.94	---	3.17	2.88	2.99	3.72	3.31	3.65	3.11
30	2.73	2.67	2.48	2.90	---	3.10	2.99	2.96	3.78	3.35	3.66	3.09
31	2.73	---	2.46	2.86	---	3.04	---	2.89	---	3.39	3.63	---
MEAN	3.00	2.69	2.58	2.55	2.51	3.35	3.04	2.86	2.86	3.41	3.54	3.36
MAX	3.28	2.89	2.79	3.01	3.03	3.60	3.39	3.27	3.78	3.73	3.82	3.64
MIN	2.73	2.57	2.46	2.23	2.18	3.04	2.62	2.53	2.46	2.86	3.21	3.09

CAL YR 1988 MEAN 3.12 MAX 4.77 MIN 2.13
WTR YR 1989 MEAN 2.98 MAX 3.82 MIN 2.18

02283498 NORTH NEW RIVER CANAL AT S-2 AND S351, NEAR SOUTH BAY, FL
(Formerly published as North New River Canal at S-2 and HGS-4, near South Bay)

LOCATION.--Lat 26°42'00", long 80°42'55", in SW¼ sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, at pump station 2 and gate structure S351, 500 ft upstream from Hillsboro Canal, and 2.7 mi north of South Bay.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1957 to September 1967 (gage heights), October 1967 to current year. Records of gage heights prior to October 1967 are available in files of the Geological Survey.

REVISED RECORDS.--WDR FL-77-2A: 1974.

GAGE.--Dual graphic water-stage recorder and digital lake recorder in pump station 2, digital canal water-stage recorder in canal, east side of S-2, gate-opening indicator, and pump tachometer. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Jan. 18, 1965, water-stage recorder at site 1,600 ft downstream at same datum. Electromagnetic velocity meter and digital recorder in lock chamber installed 1981 water year were removed October, 1986. Prior to Sept. 8, 1988, digital lake water stage recorder in control house of lock.

REMARKS.--No estimated daily stage and discharge. Record fair. Flow regulated by gates and pump station at Lake Okeechobee. Discharge is summation of gate flow, S-2 pumpage and syphonage. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades or by the operation of pump station No. 2 (negative figures indicate flow reversed). See records for North New River Canal below S351, near South Bay (station 02283500) for table of daily canal gage height. Discharge computed from relation between discharge, head, gate openings, and pump tachometer.

COOPERATION.--S-2 pump record and gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--22 years, 88.5 ft^3/s, 64,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,840 ft^3/s May 12, 1989; maximum gage height, 14.09 ft Sept. 28, 1962; maximum daily reverse flow, 4,900 ft^3/s Aug. 19, 1981; no flow for some days each year; minimum gage height, 6.98 ft, observed, Oct. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,840 ft^3/s May 12; maximum gage height, 12.94 ft Mar. 1; maximum daily reverse flow, 3,470 ft^3/s Sept. 25; no flow for many days; minimum gage height, 8.69 ft Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	1130	582	502	771	435	1850	.00	2680	.00	.00	.00
2	311	1100	712	504	760	.00	1740	.00	2720	.00	.00	.00
3	314	638	832	513	750	.00	2810	2950	2840	.00	.00	.00
4	328	.00	807	535	758	.00	3450	1900	2620	.00	345	.00
5	322	.00	816	655	732	.00	2240	1880	2830	.00	330	.00
6	185	.00	808	748	851	663	882	1620	2530	.00	561	.00
7	211	.00	789	739	949	393	1570	1660	1620	.00	696	.00
8	334	.00	802	725	963	.00	1750	2430	1390	.00	495	.00
9	329	205	810	736	1020	.00	1740	3360	1850	.00	456	.00
10	533	312	808	732	980	.00	2920	3570	2220	642	180	.00
11	820	322	770	523	947	.00	2990	3690	2450	825	.00	.00
12	945	322	295	233	936	.00	2810	3840	2480	1050	.00	.00
13	953	322	.00	238	899	1120	2400	3420	2560	903	.00	.00
14	938	537	175	239	911	1580	1340	3420	2600	840	.00	.00
15	918	635	280	245	903	1550	.00	2300	2120	708	.00	-1160
16	895	619	454	256	832	1600	.00	870	1930	690	.00	-847
17	895	614	576	260	709	1530	.00	2700	2180	576	.00	-931
18	868	609	582	264	647	1470	.00	3090	2360	585	.00	-1500
19	861	613	566	265	604	1430	402	2460	2090	234	.00	-2190
20	846	616	552	120	568	1410	879	2630	1700	.00	.00	-1040
21	837	267	537	.00	622	1460	.00	2970	1260	.00	.00	.00
22	839	.00	198	.00	258	1470	.00	2520	953	.00	.00	.00
23	840	.00	.00	.00	538	1390	.00	2340	1040	.00	.00	-2020
24	834	.00	.00	.00	753	1450	1030	2300	1240	.00	.00	-3280
25	843	.00	.00	.00	667	1490	1570	2480	1250	.00	.00	-3470
26	842	.00	.00	175	586	1480	1670	2540	1270	.00	.00	-2820
27	935	.00	392	368	375	1510	1780	2690	1080	.00	.00	-1190
28	1130	.00	565	522	.00	1670	1810	2620	278	.00	.00	.00
29	1160	325	544	528	---	1750	1640	2610	.00	.00	.00	.00
30	1150	574	531	538	---	1740	486	2580	.00	.00	.00	.00
31	1150	---	514	714	---	1760	---	2640	---	.00	.00	---
TOTAL	22683	9760.00	15297.00	11877.00	20289.00	30351.00	41759.00	76080.00	54141.00	7053.00	3063.00	-20448.00
MEAN	732	325	493	383	725	979	1392	2454	1805	228	98.8	-682
MAX	1160	1130	832	748	1020	1760	3450	3840	2840	1050	696	.00
MIN	185	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	-3470
AC-FT	44990	19360	30340	23560	40240	60200	82830	150900	107400	13990	6080	-40560

CAL YR 1988 TOTAL 155640.00 MEAN 425 MAX 1470 MIN -965 AC-FT 308700
WTR YR 1989 TOTAL 271905.00 MEAN 745 MAX 3840 MIN -3470 AC-FT 539300

02283498 NORTH NEW RIVER CANAL AT S-2 AND S 351, NEAR SOUTH BAY, FL
(Formerly published as North New River Canal at S-2 and HGS-4, near South Bay)

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.87	15.13	15.19	14.47	14.14	13.39	13.48	12.80	11.93	11.44	11.24	11.42
2	15.79	15.16	15.46	14.47	14.10	13.41	13.14	12.98	11.91	11.43	11.21	11.40
3	15.73	14.94	15.08	14.47	14.07	13.50	13.04	12.97	11.80	11.42	11.26	11.48
4	15.83	15.10	14.91	14.64	14.06	13.51	12.88	12.87	11.72	11.41	11.31	11.60
5	15.90	15.13	14.91	14.42	13.96	13.49	13.03	12.78	11.66	11.39	11.22	11.68
6	16.10	15.35	14.78	14.29	13.99	13.52	13.25	12.83	11.61	11.38	11.13	11.74
7	16.08	15.29	14.75	14.30	13.98	13.92	13.13	13.07	11.62	11.39	11.02	11.76
8	16.01	15.28	14.76	14.29	14.04	14.35	13.05	12.94	11.48	11.40	11.05	11.80
9	15.77	15.25	14.73	14.30	14.39	14.29	12.96	12.62	11.52	11.40	11.06	11.71
10	15.78	15.22	14.75	14.32	14.28	14.34	12.88	12.59	11.66	11.38	11.14	11.70
11	15.67	15.22	14.61	14.32	14.05	14.10	13.01	12.66	11.63	11.36	11.20	11.71
12	15.69	15.22	14.88	14.21	14.07	13.72	13.04	12.70	11.53	11.29	11.23	11.71
13	15.81	15.19	15.07	14.25	13.80	13.66	12.86	12.47	11.49	11.27	11.30	11.70
14	15.76	15.25	14.82	14.17	13.77	13.63	12.85	12.50	11.45	11.20	11.31	11.63
15	15.64	15.18	14.75	14.16	13.78	13.57	12.83	12.46	11.30	11.19	11.28	11.61
16	15.55	15.08	14.71	14.22	13.79	13.62	12.94	12.55	11.21	11.17	11.34	11.62
17	15.62	15.10	15.04	14.25	13.75	13.56	12.97	12.50	11.30	11.15	11.33	11.75
18	15.47	15.06	15.06	14.22	13.81	13.59	13.11	12.52	11.37	11.15	11.33	11.91
19	15.40	14.99	14.68	14.20	13.79	13.58	13.06	12.46	11.34	11.22	11.35	11.85
20	15.39	14.97	14.58	14.14	13.58	13.43	13.03	12.45	11.31	11.21	11.36	11.95
21	15.40	14.99	14.58	14.35	13.43	13.40	13.21	12.38	11.31	11.25	11.40	12.07
22	15.40	14.72	14.59	14.36	13.69	13.40	13.24	12.28	11.30	11.21	11.43	11.69
23	15.39	14.65	14.57	14.51	14.12	13.25	13.05	12.28	11.32	11.25	11.46	11.86
24	15.31	15.31	14.57	14.40	13.98	13.49	12.98	12.27	11.29	11.30	11.44	11.97
25	15.36	15.07	14.57	14.27	13.67	13.58	12.93	12.32	11.27	11.30	11.44	12.06
26	15.28	14.87	14.62	14.17	13.47	13.39	12.95	12.24	11.24	11.33	11.47	12.09
27	15.18	14.82	14.52	14.20	13.37	13.34	12.98	12.24	11.18	11.28	11.45	12.13
28	15.18	15.14	14.49	14.23	13.35	13.26	12.89	12.16	11.15	11.23	11.47	12.16
29	15.18	15.19	14.52	14.18	---	13.15	12.85	12.12	11.29	11.24	11.53	12.11
30	15.17	14.91	14.49	14.17	---	13.09	12.79	12.04	11.34	11.21	11.44	12.08
31	15.12	---	14.44	14.17	---	13.12	---	11.98	---	11.21	11.42	---
MEAN	15.58	15.09	14.70	14.29	13.87	13.57	13.01	12.52	11.45	11.29	11.31	11.80
MAX	16.10	15.35	15.46	14.64	14.39	14.35	13.48	13.07	11.93	11.44	11.53	12.16
MIN	15.12	14.65	14.44	14.14	13.35	13.09	12.79	11.98	11.15	11.15	11.02	11.40

CAL YR 1988 MEAN 15.67 MAX 16.81 MIN 14.44
WTR YR 1989 MEAN 13.21 MAX 16.10 MIN 11.02

02283500 NORTH NEW RIVER CANAL BELOW S351, NEAR SOUTH BAY, FL

LOCATION.--lat 26°41'50", long 80°42'50", in SW¼ sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, 30 ft from west bank, 800 ft downstream from Hillsboro Canal, 1,600 ft downstream from gate structure S351 and pump station 2 at Lake Okeechobee, and 2.5 mi north of South Bay.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1957 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

REVISED RECORD.--WDR FL-77-2A: 1974, 1975.

GAGE.--Digital water stage recorder and electromagnetic velocity meter. Prior to October 1, 1986, water stage recorder at pump station 2 used for gage heights at this station. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Jan. 18, 1954, water-stage and deflection-meter recorder at site 1,600 ft downstream at same datum. Jan. 19, 1965 to Sept. 30, 1967 deflection-meter recorder at site 1,600 ft downstream.

REMARKS.--Estimated daily discharge: Oct. 4-12, Nov. 25, 27, June 29, 30, July 1, 4, 5, 8, 19, 20, Aug. 9, 10, 16, 24-27, Sept. 5, 9-12, 14-30. Records poor. Flow regulated by S351 gate and pump station at Lake Okeechobee. Flow occasionally reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades (negative figures indicate flow reversed). Discharge was the difference in flow between North New River Canal at S-2 and S351 and Hillsboro Canal below S351 February 1957 to June 9, 1987.

AVERAGE DISCHARGE.--32 years, 94.3 ft^3/s, 68,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,100 ft^3/s June 16, 1977; maximum gage height, 14.09 ft Sept. 28, 1962; maximum daily reverse flow, 3,190 ft^3/s Aug. 19, 1981; minimum gage height, 6.98 ft observed Oct. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,610 ft^3/s May 5; maximum gage height, 12.95 ft Mar. 1; maximum daily reverse flow, 826 ft^3/s Sept. 19; minimum gage height, 9.25 ft Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	370	375	344	459	111	1350	432	1270	-16	243	159
2	244	311	376	325	448	52	990	504	1260	13	245	29
3	254	202	467	307	430	63	1420	848	1520	58	231	37
4	350	11	484	314	422	66	1480	1390	1600	-114	349	12
5	292	64	466	358	404	52	1080	1610	1490	-19	294	-8.0
6	222	39	424	426	489	161	681	1370	1560	84	381	10
7	231	77	402	417	521	155	1180	1580	770	98	495	12
8	334	26	507	341	468	93	960	1300	608	-37	34	300
9	335	195	594	379	487	417	1280	1250	837	7.5	-160	-36
10	486	258	596	368	478	330	1380	1380	884	281	-27	-75
11	629	253	506	285	445	150	1540	1060	1020	294	54	-11
12	785	259	300	165	446	99	745	812	1260	629	40	-4.2
13	761	272	220	230	401	550	610	664	1040	615	279	11
14	765	368	166	219	607	1050	438	668	1240	550	179	-13
15	633	405	272	199	710	1250	266	386	1290	393	12	-602
16	604	408	381	246	1010	1140	366	362	1200	383	-99	-623
17	620	406	480	261	1450	1090	454	662	1310	328	21	-490
18	542	355	419	261	1240	920	359	709	1210	353	19	-446
19	538	413	364	234	808	874	464	511	1040	-72	122	-826
20	503	419	376	130	695	1050	898	560	888	-26	55	-591
21	522	212	389	56	633	863	464	882	714	145	19	-266
22	572	79	211	196	333	807	498	1550	545	114	16	-112
23	537	24	138	97	907	785	479	1380	614	94	56	-722
24	521	3.0	66	38	416	701	1080	703	786	94	-63	-734
25	508	-56	41	94	216	752	1260	758	739	176	-2.0	-451
26	439	13	48	168	194	757	1150	884	791	98	-9.2	-156
27	490	-2.6	336	300	181	902	1070	1000	591	66	-24	-80
28	575	5.1	441	345	232	1020	1160	976	115	8.5	75	-37
29	606	171	411	355	---	817	1050	853	-105	79	58	-27
30	560	290	380	349	---	1110	542	851	-47	64	69	-35
31	582	---	358	451	---	1250	---	943	---	151	140	---
TOTAL	15362	5849.5	10994	8258	15530	19437	26704	28838	28040	4892.0	3101.8	-5775.2
MEAN	496	195	355	266	555	627	890	930	935	158	100	-193
MAX	785	419	596	451	1450	1250	1540	1610	1600	629	495	300
MIN	222	-56	41	38	181	52	266	362	-105	-114	-160	-826
AC-FT	30470	11600	21810	16380	30800	38550	52970	57200	55620	9700	6150	-11460

CAL YR 1988 TOTAL 124630 MEAN 341 MAX 1360 MIN -293 AC-FT 246700
WTR YR 1989 TOTAL 161231.1 MEAN 442 MAX 1610 MIN -826 AC-FT 319800

02283500 NORTH NEW RIVER CANAL BELOW S351, NEAR SOUTH BAY, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.28	11.49	11.32	11.59	11.12	11.84	11.82	11.14	11.52	10.85	11.29	11.23
2	11.36	11.68	11.41	11.57	11.17	11.04	11.68	10.63	11.50	10.35	11.32	11.15
3	11.22	11.51	11.56	11.46	11.21	11.48	11.95	10.63	11.37	10.20	11.06	11.80
4	10.93	11.62	11.61	11.37	11.14	11.25	12.27	11.13	11.34	10.70	10.69	11.27
5	11.17	10.77	11.53	11.34	11.24	10.47	11.97	11.28	11.23	10.70	11.12	11.70
6	11.12	11.22	11.47	11.46	11.24	10.64	10.66	12.02	11.23	10.82	10.85	11.38
7	10.90	11.20	11.59	11.53	11.41	11.82	11.41	12.22	11.43	10.92	10.88	11.72
8	10.91	10.74	11.49	11.62	11.39	10.99	11.57	12.20	11.34	10.71	11.04	11.20
9	10.82	10.71	11.40	11.56	11.45	11.11	11.51	12.04	11.29	10.31	11.07	11.69
10	10.80	10.79	11.43	11.60	11.54	10.57	12.02	11.96	11.35	10.46	11.08	11.73
11	10.94	10.50	11.60	11.81	11.49	10.14	12.54	12.00	11.27	11.02	11.45	11.42
12	11.16	10.49	11.71	11.73	11.56	9.67	12.61	12.01	11.16	11.06	11.14	11.26
13	11.20	10.47	11.32	11.66	11.49	10.40	12.52	11.86	11.10	11.17	11.51	11.19
14	11.30	10.43	11.09	11.56	11.40	11.49	12.54	11.89	11.05	11.12	11.73	10.98
15	11.37	10.57	11.17	11.42	11.45	11.51	11.40	11.55	10.99	11.13	11.18	11.02
16	11.49	10.71	11.23	11.23	11.81	11.42	10.67	11.04	10.94	11.12	11.03	10.99
17	11.56	10.80	11.25	11.17	12.30	11.56	10.82	11.75	10.98	11.13	11.16	11.13
18	11.65	10.82	11.19	11.05	12.62	11.75	10.87	11.99	11.02	11.12	11.83	10.28
19	11.64	10.69	11.02	10.99	12.75	11.83	9.92	12.08	11.04	11.42	12.27	10.21
20	11.77	10.63	11.10	11.03	12.66	11.72	11.39	12.02	11.10	11.64	11.93	10.20
21	11.84	10.84	11.29	11.05	12.32	11.57	11.48	11.87	11.18	10.78	11.45	10.99
22	11.83	11.25	11.48	11.45	11.35	11.55	11.35	11.87	11.22	10.21	11.20	11.12
23	11.81	11.09	11.01	11.36	11.60	11.60	10.85	11.92	11.23	10.31	10.85	11.57
24	11.78	10.35	10.67	10.86	12.36	11.69	11.18	11.92	11.17	10.78	10.79	11.19
25	11.75	10.70	10.40	10.88	12.39	11.67	11.74	11.93	11.15	10.85	10.79	10.66
26	11.68	10.77	10.22	10.88	12.49	11.54	11.60	11.83	11.11	10.57	10.77	9.79
27	11.59	10.79	10.28	10.99	12.41	11.41	11.46	11.80	11.08	10.69	10.91	11.18
28	11.53	10.82	10.85	11.12	12.53	11.46	11.67	11.73	11.13	11.14	11.09	11.94
29	11.36	10.99	11.14	11.00	---	11.67	12.01	11.69	10.96	10.96	10.83	11.41
30	11.40	11.15	11.28	10.88	---	11.62	11.64	11.61	10.95	10.91	10.46	11.29
31	11.38	---	11.42	10.85	---	11.63	---	11.54	---	10.98	11.40	---
MEAN	11.37	10.89	11.21	11.29	11.78	11.29	11.57	11.71	11.18	10.84	11.17	11.16
MAX	11.84	11.68	11.71	11.81	12.75	11.84	12.61	12.22	11.52	11.64	12.27	11.94
MIN	10.80	10.35	10.22	10.85	11.12	9.67	9.92	10.63	10.94	10.20	10.46	9.79

CAL YR 1988 MEAN 11.23 MAX 12.79 MIN 9.88
WTR YR 1989 MEAN 11.29 MAX 12.75 MIN 9.67

02285000 NORTH NEW RIVER CANAL NEAR FORT LAUDERDALE, FL

LOCATION.--Lat 26°05'39", long 80°13'48", in SW¼ sec.14, T.50 S., R.41 E., Broward County, Hydrologic Unit 03090202, on left bank 20 ft upstream from lock and salinity-control structure on State Highway 84, and 6 mi southwest of Fort Lauderdale.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May to September 1913 (discharge measurements). November 1939 to current year. Records of gage heights prior to October 1961 are available in files of the Geological Survey.

GAGE.--Water-stage recorder and sharp crested weir. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Apr. 13, 1940, nonrecording gage at same site and datum. Dec. 9, 1959, to Sept. 30, 1967, deflection vane recorder near left bank 20 ft upstream from lock and dam. Auxiliary water-stage recorder at downstream end of lock chamber. Aug. 1, 1947, to July 20, 1950, auxiliary gage at site 300 ft downstream.

REMARKS.--No estimated daily stage and discharge. Records poor. Flow regulated at and above station by control structure for irrigation, drainage, and flood and fire control. Several small diversions above station for irrigation. Since February 1952, flow materially affected by control structure at 20-mile bend, 14 mi upstream. Discharge computed from relations between discharge, head, and submergence.

COOPERATION.--Stoplog record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--49 years, 358 ft^3/s, 259,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,280 ft^3/s Nov. 19, 1947; maximum gage height, 10.83 ft Oct. 17, 1947; no flow May 5, 6, 13, 15-20, 24-26, 1966; minimum gage height, 0.08 ft Aug. 13, 1978, July 19, 1982.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Oct. 15, 1929, reached a stage of 7.66 ft, present site and datum, discharge, 5,400 ft^3/s from records by Everglades Drainage District.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 64 ft^3/s, July 2; maximum gage height, 5.12 ft Mar. 1; minimum daily discharge, 3.0 ft^3/s (estimated leakage) for some days during the year; minimum gage height, 2.65 ft Apr. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	15	3.0	3.0	3.0	56	3.0	3.0	3.0	62	3.0	3.0
2	3.8	23	3.0	3.0	3.0	3.2	3.0	3.0	3.0	64	3.0	3.0
3	3.8	26	3.0	3.0	3.0	3.0	3.0	3.0	3.0	11	3.0	3.0
4	4.7	46	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	3.0	3.0
5	14	16	3.0	3.0	3.0	3.0	3.0	3.0	3.0	7.3	3.0	3.0
6	18	3.0	3.0	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
7	20	3.6	3.0	3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
8	19	11	3.0	3.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
9	19	16	3.0	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
10	18	19	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
11	18	21	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
12	17	22	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
13	16	23	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
14	15	8.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
15	14	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
16	13	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
17	13	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
18	13	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
19	12	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
20	11	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	8.7	3.0
21	10	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	10	3.0
22	12	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
23	12	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	3.0
24	12	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
25	11	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
26	10	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
27	9.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.7	3.0	3.0
28	11	3.0	3.0	3.0	14	3.0	3.0	3.0	3.0	3.0	3.0	3.0
29	11	3.0	3.0	3.0	---	3.0	3.0	3.0	8.6	3.0	3.0	3.0
30	10	3.0	3.0	3.0	---	3.0	3.0	3.0	18	5.6	3.0	3.0
31	10	---	3.0	3.0	---	3.0	---	3.0	---	5.3	3.0	---
TOTAL	386.3	301.2	93.0	95.3	95.0	146.2	90.0	93.0	110.6	232.3	106.9	90.0
MEAN	12.5	10.0	3.00	3.07	3.39	4.72	3.00	3.00	3.69	7.49	3.45	3.00
MAX	20	46	3.0	3.9	14	56	3.0	3.0	18	64	10	3.0
MIN	3.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
AC-FT	766	597	184	189	188	290	179	184	219	461	212	179

CAL YR 1988	TOTAL	29137.4	MEAN 79.6	MAX 712	MIN 3.0	AC-FT	57790
WTR YR 1989	TOTAL	1839.8	MEAN 5.04	MAX 64	MIN 3.0	AC-FT	3650

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02285000 NORTH NEW RIVER CANAL NEAR FORT LAUDERDALE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.31	3.56	3.65	3.54	3.49	4.55	3.28	3.44	3.54	4.66	3.55	3.67
2	3.24	3.66	3.65	3.56	3.46	3.93	3.26	3.52	3.35	4.66	3.63	3.86
3	3.27	3.60	3.63	3.66	3.43	3.72	3.23	3.49	3.32	4.18	3.80	3.57
4	3.32	3.70	3.63	3.89	3.40	3.41	3.23	3.46	3.30	4.04	3.69	3.46
5	3.48	3.38	3.63	3.95	3.37	3.65	3.25	3.41	3.27	4.03	3.67	3.66
6	3.54	3.14	3.61	4.01	3.35	3.72	3.30	3.41	3.29	3.70	3.68	3.48
7	3.60	3.12	3.61	4.04	3.30	3.59	3.28	3.42	3.56	3.84	3.67	3.73
8	3.62	3.33	3.62	4.03	3.27	3.58	3.22	3.36	3.60	3.93	3.67	3.63
9	3.62	3.41	3.63	3.76	3.28	3.69	3.19	3.33	3.58	3.94	3.67	3.56
10	3.62	3.45	3.59	3.41	3.26	3.61	3.19	3.35	3.56	3.88	3.73	3.52
11	3.60	3.47	3.58	3.40	3.23	3.71	3.22	3.36	3.52	3.72	3.76	3.49
12	3.59	3.48	3.60	3.40	3.20	3.78	3.23	3.36	3.47	3.68	3.68	3.48
13	3.57	3.49	3.60	3.43	3.14	3.80	3.25	3.34	3.43	3.76	3.65	3.65
14	3.56	3.50	3.58	3.39	3.11	3.79	3.28	3.32	3.38	3.57	3.69	3.46
15	3.55	3.49	3.58	3.42	3.10	3.75	3.36	3.38	3.32	3.67	3.80	3.43
16	3.54	3.54	3.60	3.43	3.17	3.75	3.71	3.46	3.25	3.75	3.68	3.45
17	3.55	3.56	3.60	3.42	3.19	3.61	3.74	3.42	3.19	3.78	3.83	3.53
18	3.53	3.62	3.57	3.45	3.21	3.45	3.50	3.41	3.15	3.70	3.77	3.67
19	3.53	3.60	3.55	3.52	3.24	3.43	3.53	3.38	3.12	3.81	3.56	3.77
20	3.51	3.65	3.52	3.56	3.22	3.36	3.58	3.34	3.13	3.88	4.04	3.72
21	3.49	3.68	3.55	3.61	3.23	3.34	3.61	3.30	3.12	3.79	4.04	3.58
22	3.53	3.56	3.57	3.74	3.31	3.32	3.14	3.32	3.24	3.18	3.60	3.73
23	3.52	3.65	3.57	3.69	3.32	3.29	2.82	3.44	3.38	2.88	3.99	3.61
24	3.52	3.59	3.58	3.66	3.22	3.30	2.88	3.45	3.40	2.93	3.91	3.50
25	3.51	3.60	3.59	3.63	3.19	3.37	3.42	3.63	3.46	3.20	3.83	3.58
26	3.50	3.57	3.60	3.60	3.17	3.37	3.51	3.65	3.59	3.80	3.78	3.68
27	3.48	3.60	3.51	3.60	3.17	3.35	3.41	3.61	3.75	3.88	3.75	3.48
28	3.51	3.65	3.54	3.58	3.58	3.31	3.37	3.58	3.85	3.72	3.70	3.43
29	3.50	3.63	3.55	3.56	---	3.26	3.34	3.55	4.09	3.95	3.66	3.40
30	3.50	3.63	3.55	3.53	---	3.23	3.38	3.59	4.25	4.08	3.70	3.62
31	3.50	---	3.53	3.51	---	3.23	---	3.69	---	3.93	3.67	---
MEAN	3.51	3.53	3.59	3.61	3.27	3.56	3.32	3.44	3.45	3.79	3.74	3.58
MAX	3.62	3.70	3.65	4.04	3.58	4.55	3.74	3.69	4.25	4.66	4.04	3.86
MIN	3.24	3.12	3.51	3.39	3.10	3.23	2.82	3.30	3.12	2.88	3.55	3.40

CAL YR 1988 MEAN 3.36 MAX 4.14 MIN 1.23
WTR YR 1989 MEAN 3.54 MAX 4.66 MIN 2.82

02285001 NORTH NEW RIVER CANAL BELOW CONTROL NEAR FORT LAUDERDALE, FL

LOCATION.--Lat 26°05'39", long 80°13'50", in SW¼ sec.14, T.50 S., R.41 E., Broward County, Hydrologic Unit 03090202, on left bank downstream side of salinity-control structure on State Highway 84, and 6 mi southwest of Fort Lauderdale.

DRAINAGE.--Indeterminate.

PERIOD OF RECORD.--October 1943 to July 1947 (fragmentary), August 1974 to current year (gage heights). Record of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Aug. 1, 1947 to July 20, 1950, water-stage recorder at site 300 ft downstream at same datum.

REMARKS.--No estimated daily stage. Stage is basically tidal but is occasionally affected by operation of salinity-control structure during high flow. The stage record published is the maximum and minimum tide event for each calendar day.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.56 ft Oct. 19, 1947; minimum -1.33 ft Dec. 31, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.38 ft Oct. 9, 10; minimum -0.61 ft Apr. 7, 10.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.14	1.98	1.46	1.07	1.04	1.56	1.19	1.48	1.48	2.16	1.38	1.69
2	2.06	1.96	1.13	.90	1.14	1.29	1.25	1.53	1.58	2.04	1.55	1.87
3	1.98	2.07	1.36	1.03	1.17	1.48	1.40	1.73	1.49	1.93	1.69	1.95
4	1.89	2.09	1.47	1.18	1.27	1.31	1.53	1.82	1.61	1.89	1.89	1.90
5	1.91	2.09	1.54	1.37	1.56	1.31	1.50	1.79	1.66	1.90	1.94	1.80
6	1.88	1.98	1.62	1.68	1.61	1.38	1.45	1.72	1.48	1.77	1.82	1.82
7	2.18	1.70	1.52	1.53	1.59	1.72	1.47	1.63	1.61	1.57	1.74	1.94
8	2.33	1.58	1.63	1.50	1.52	1.74	1.32	1.68	1.39	1.50	1.63	1.89
9	3.38	1.54	1.59	1.42	1.47	1.94	1.37	1.60	1.10	1.39	1.40	1.69
10	3.38	1.54	1.55	1.44	1.53	2.09	1.14	1.43	.85	1.33	1.28	1.81
11	3.35	1.50	1.59	1.20	1.67	2.24	1.09	1.48	.83	1.20	1.37	1.79
12	3.27	1.71	1.69	1.32	1.49	2.15	1.09	1.38	.91	1.21	1.57	1.90
13	3.00	1.73	1.68	1.23	1.55	1.97	1.24	1.49	.95	1.19	1.83	1.99
14	2.83	1.63	1.72	1.29	1.22	1.65	1.28	1.19	1.03	1.21	1.89	2.03
15	---	1.60	1.76	1.23	1.14	1.54	1.41	1.31	1.22	1.03	1.92	2.02
16	---	1.78	1.60	.95	1.05	1.38	1.40	1.27	1.33	1.20	2.04	2.02
17	---	1.61	1.76	1.15	1.17	1.37	1.26	1.31	1.24	1.31	1.87	2.07
18	---	1.53	1.54	1.06	1.47	1.37	1.43	1.20	1.31	1.31	1.87	2.26
19	---	1.65	1.59	1.21	1.55	1.33	1.39	1.23	1.39	1.28	2.00	2.22
20	---	1.65	1.74	1.30	1.78	1.35	1.56	1.38	1.39	1.35	2.15	2.11
21	---	1.41	1.47	1.50	1.79	1.26	1.68	1.16	1.43	1.49	1.93	2.11
22	---	1.50	1.29	1.78	1.60	1.22	1.67	1.24	1.28	1.64	1.77	1.90
23	---	1.33	1.49	1.61	1.36	1.27	1.65	1.24	1.34	1.58	1.61	1.79
24	---	1.35	1.41	1.77	1.26	1.27	1.51	1.08	1.42	1.59	1.40	1.79
25	---	1.53	1.24	1.88	1.15	1.21	1.41	1.07	1.24	1.51	1.37	1.67
26	---	1.84	1.15	1.69	1.20	1.19	1.31	1.15	1.47	1.71	1.48	1.54
27	---	1.71	1.40	1.33	1.37	1.31	1.34	1.14	1.53	1.66	1.51	2.00
28	---	1.52	1.28	1.42	1.55	1.16	1.39	1.15	1.64	1.59	1.43	2.13
29	---	1.59	1.14	1.08	---	1.11	1.43	1.22	1.96	1.55	1.57	2.19
30	---	1.60	1.15	1.12	---	1.20	1.41	1.35	2.19	1.58	1.61	2.02
31	---	---	1.09	.89	---	1.18	---	1.25	---	1.39	1.66	---
MEAN	---	1.68	1.47	1.33	1.40	1.47	1.39	1.38	1.38	1.52	1.68	1.93
MAX	---	2.09	1.76	1.88	1.79	2.24	1.68	1.82	2.19	2.16	2.15	2.26
MIN	---	1.33	1.09	.89	1.04	1.11	1.09	1.07	.83	1.03	1.28	1.54

02285001 NORTH NEW RIVER CANAL BELOW CONTROL NEAR FORT LAUDERDALE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	---	.03	-.40	-.34	-.13	-.31	-.19	-.55	.37	-.41	.06
2	.47	.63	-.09	-.40	-.45	-.03	-.30	-.32	-.51	.29	-.20	.18
3	.69	.64	-.03	-.46	-.57	-.04	-.40	-.36	-.49	.26	.00	.36
4	.46	.72	.03	-.47	-.50	-.16	-.40	-.34	-.46	.17	.31	.40
5	.55	.72	.01	-.40	-.39	-.35	-.52	-.31	-.42	.40	.40	.33
6	.55	.52	-.07	-.30	-.37	-.48	-.60	-.33	-.27	-.01	.29	.31
7	.56	.13	-.20	-.38	-.32	-.27	-.61	-.47	-.26	.01	.25	.46
8	.82	-.08	-.20	-.49	-.45	-.20	-.60	-.17	-.46	.02	.31	.54
9	1.00	-.26	-.29	-.58	-.49	-.14	-.60	-.36	-.52	.02	.01	.41
10	.56	-.26	-.44	-.52	-.28	.28	-.61	-.06	-.54	-.08	-.14	.32
11	.52	-.30	-.24	-.59	-.31	.39	-.54	.01	-.48	-.20	-.12	.24
12	.33	-.14	-.19	-.49	-.15	.23	-.29	-.03	-.45	-.23	-.05	.32
13	-.07	.06	-.10	-.58	-.23	.13	-.18	-.04	-.50	-.21	.27	.18
14	---	-.11	-.06	-.41	-.40	.05	-.18	-.13	-.52	-.39	.25	.26
15	---	-.12	.04	-.59	-.40	-.07	.03	-.17	-.40	-.46	.15	.15
16	---	.21	.02	-.57	-.43	-.05	-.01	-.17	-.34	-.44	.20	.03
17	---	-.02	-.19	-.59	-.43	-.06	-.16	-.28	-.46	-.42	.06	-.05
18	---	-.12	-.19	-.58	-.26	-.10	-.18	-.57	-.45	-.47	.10	.18
19	---	-.17	-.24	-.57	-.13	-.20	-.21	-.52	-.34	-.46	-.02	.32
20	---	-.11	-.18	-.54	-.04	-.17	-.24	-.48	-.40	-.32	.39	.19
21	---	-.48	-.42	-.41	.12	-.30	-.06	-.47	-.52	-.12	.14	.39
22	---	-.49	-.57	-.03	.04	-.40	-.11	-.56	-.45	.00	.04	.35
23	---	-.52	-.45	-.14	-.25	-.32	-.17	-.60	-.40	-.09	-.04	.22
24	---	-.60	-.50	-.02	-.40	-.42	-.24	-.56	-.29	-.06	-.23	.26
25	---	-.41	-.53	.30	-.24	-.42	-.30	-.53	-.44	-.16	-.29	.15
26	---	-.10	-.50	-.02	-.16	-.24	-.21	-.44	-.42	-.05	-.28	-.04
27	---	-.04	-.27	-.08	-.05	-.29	-.18	-.39	-.38	-.04	-.19	.01
28	---	-.03	-.23	-.04	.18	-.34	.00	-.38	-.19	-.23	-.27	.40
29	---	-.02	-.25	-.34	---	-.30	-.09	-.37	-.11	-.23	-.20	.52
30	---	.19	-.17	-.42	---	-.27	-.11	-.42	.11	-.22	-.06	.45
31	---	---	-.22	-.38	---	-.27	---	-.56	---	-.45	.01	---
MEAN	---	---	-.22	-.37	-.28	-.16	-.28	-.34	-.40	-.12	.02	.26
MAX	---	---	.04	.30	.18	.39	.03	.01	.11	.40	.40	.54
MIN	---	---	-.57	-.59	-.57	-.48	-.61	-.60	-.55	-.47	-.41	-.05

02286100 SOUTH NEW RIVER CANAL AT S-13, NEAR DAVIE, FL

LOCATION.--Lat 26°03'57", long 80°12'32", in SW¼ sec.25, T.50 S., R.41 E., Broward County, Hydrologic Unit 03090202, 18 ft from north bank, 150 ft upstream from pump station 13, 300 ft west of U.S. Highway 441, and 1.5 mi east of Davie.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WDR FL-87-2A: 1962-86 (maximum daily reverse flow).

GAGE.--Dual water-stage recorder, and gate-opening recorder. Prior to September 30, 1984, deflection vane and prior to September 30, 1985, electromagnetic velocity meter at same site. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Oct. 13-20, Oct. 22 to Nov. 9. Records fair, except those for estimated daily discharges, which are poor. Flow is affected by tide and is occasionally reversed. Negative figures indicate reverse flow. Flow is regulated by pumpage and operation of gate at S-13. Flow is affected by regulation of control-structure 13A 5 miles upstream and by upstream withdrawals from the canal during the growing season and pumpage into the canal during high water. Discharge is computed from relation between head and gate-opening at S-13.

COOPERATION.--Gate-opening and pump records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--30 years (water years 1958-86, 1988), 175 ft^3/s, 126,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft^3/s Dec. 27, 1986; maximum gage height, 4.02 ft Apr. 25, 1979; maximum reverse flow, 657 ft^3/s Sept. 12, 1962; no flow for some days in most years; minimum gage height, -0.79 ft July 14, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 363 ft^3/s Oct. 25 (estimated); maximum gage height, 2.32 ft Aug. 20; no flow for some days during the year; minimum gage height, -0.02 ft Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	129	.00	.00	39	215	.00	36	39	178	76	78
2	.00	129	.00	.00	.00	197	.00	27	.00	167	62	79
3	184	127	.00	.00	.00	197	.00	.00	.00	174	79	88
4	223	126	.00	.00	.00	174	33	14	.00	164	26	72
5	202	118	.00	.00	.00	153	.00	.00	.00	167	53	53
6	247	.00	28	.00	.00	90	.00	32	54	172	52	70
7	239	78	.00	.00	.00	116	.00	.00	127	142	23	67
8	219	20	.00	.00	.00	99	.00	.00	106	113	45	34
9	221	.00	.00	.00	.00	109	.00	.00	83	97	38	67
10	183	38	.00	30	.00	85	.00	.00	69	113	108	41
11	289	.00	.00	.00	.00	73	.00	.00	43	90	96	45
12	331	.00	.00	.00	.00	71	.00	24	56	76	66	33
13	300	39	.00	41	.00	66	.00	.00	29	69	84	34
14	143	.00	.00	.00	.00	32	15	.00	25	132	85	23
15	.00	40	.00	.00	.00	54	31	72	23	106	70	50
16	.00	.00	34	.00	.00	56	72	113	13	104	88	40
17	245	9.1	.00	.00	.00	52	70	89	.00	156	66	18
18	362	47	.00	.00	.00	47	98	85	.00	200	74	139
19	362	5.2	.00	.00	.00	41	68	50	.00	146	81	112
20	362	38	.00	.00	.00	47	112	52	24	146	163	118
21	361	.00	.00	10	.00	.00	82	54	.00	137	199	72
22	362	72	9.9	102	42	33	57	32	65	166	203	71
23	362	40	28	54	40	37	48	---	80	116	183	64
24	362	.00	.00	48	.00	.00	43	---	40	105	151	59
25	363	.00	26	30	.00	38	35	---	43	103	125	63
26	219	.00	20	41	.00	.00	50	---	49	105	95	82
27	114	.00	.00	.00	41	38	.00	.00	67	90	99	49
28	122	38	.00	35	183	.00	33	---	109	92	83	55
29	.00	.00	.00	.00	---	.00	.00	.00	148	93	54	42
30	123	.00	17	48	---	.00	50	---	183	88	81	49
31	124	---	.00	.00	---	.00	---	.00	---	78	73	---
TOTAL	6624.00	1093.30	162.90	439.00	345.00	2120.00	897.00	---	1475.00	3885	2781	1867
MEAN	214	36.4	5.25	14.2	12.3	68.4	29.9	---	49.2	125	89.7	62.2
MAX	363	129	34	102	183	215	112	---	183	200	203	139
MIN	.00	.00	.00	.00	.00	.00	.00	---	.00	69	23	18
AC-FT	13140	2170	323	871	684	4210	1780	---	2930	7710	5520	3700

CAL YR 1988 TOTAL 60512.30 MEAN 165 MAX 654 MIN .00 AC-FT 120000

02286100 SOUTH NEW RIVER CANAL AT S-13, NEAR DAVIE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.67	1.42	1.65	1.72	1.62	1.07	1.68	1.58	1.53	2.17	1.52	1.56
2	1.70	1.34	1.67	1.68	1.56	1.61	1.67	1.59	1.59	2.14	1.57	1.58
3	1.48	1.04	1.68	1.69	1.63	1.71	1.65	1.66	1.63	2.00	1.55	1.57
4	1.49	.85	1.69	1.70	1.65	1.55	1.59	1.64	1.65	1.88	1.57	1.58
5	1.35	1.13	1.69	1.70	1.65	1.47	1.55	1.68	1.63	1.74	1.56	1.58
6	1.57	1.56	1.60	1.70	1.66	1.56	1.61	1.55	1.60	1.61	1.54	1.54
7	1.65	1.39	1.59	1.70	1.67	1.51	1.62	1.66	1.57	1.53	1.64	1.60
8	1.87	1.52	1.62	1.70	1.67	1.53	1.60	1.68	1.56	1.53	1.56	1.60
9	1.99	1.65	1.63	1.70	1.66	1.52	1.58	1.67	1.55	1.53	1.59	1.55
10	1.91	1.60	1.63	1.62	1.65	1.57	1.56	1.66	1.57	1.52	1.54	1.63
11	1.63	1.61	1.65	1.64	1.65	1.59	1.54	1.65	1.60	1.49	1.49	1.63
12	1.54	1.69	1.67	1.68	1.64	1.59	1.53	1.60	1.56	1.55	1.58	1.58
13	1.53	1.55	1.69	1.52	1.62	1.57	1.55	1.66	1.55	1.60	1.56	1.59
14	1.56	1.65	1.69	1.56	1.61	1.61	1.62	1.69	1.61	1.50	1.56	1.64
15	1.62	1.62	1.69	1.62	1.59	1.59	1.57	1.65	1.65	1.51	1.60	1.53
16	1.64	1.61	1.64	1.64	1.58	1.55	1.57	1.52	1.55	1.54	1.54	1.60
17	1.50	1.67	1.56	1.66	1.56	1.56	1.53	1.52	1.65	1.57	1.58	1.65
18	1.53	1.55	1.59	1.67	1.56	1.56	1.52	1.55	1.67	1.55	1.57	1.71
19	1.39	1.66	1.60	1.67	1.56	1.57	1.56	1.54	1.67	1.53	1.60	1.68
20	1.57	1.51	1.61	1.67	1.55	1.57	1.52	1.54	1.61	1.50	2.17	1.60
21	1.67	1.68	1.65	1.68	1.55	1.61	1.56	1.51	1.61	1.58	2.04	1.57
22	1.57	1.43	1.69	1.50	1.56	1.56	1.60	1.59	1.59	1.53	1.75	1.56
23	1.60	1.39	1.54	1.57	1.57	1.59	1.56	1.48	1.56	1.53	1.61	1.58
24	1.59	1.51	1.65	1.58	1.61	1.64	1.57	1.39	1.55	1.56	1.51	1.57
25	1.48	1.59	1.67	1.61	1.68	1.54	1.59	1.38	1.58	1.53	1.56	1.62
26	1.25	1.63	1.51	1.60	1.70	1.67	1.59	1.39	1.61	1.54	1.52	1.49
27	1.29	1.66	1.62	1.59	1.52	1.53	1.60	1.31	1.57	1.54	1.53	1.57
28	1.38	1.60	1.67	1.59	1.53	1.62	1.56	1.41	1.55	1.58	1.56	1.59
29	1.55	1.57	1.69	1.66	---	1.66	1.63	1.31	1.67	1.53	1.61	1.59
30	1.46	1.62	1.64	1.51	---	1.67	1.56	1.41	1.88	1.55	1.56	1.58
31	1.45	---	1.65	1.64	---	1.67	---	1.52	---	1.56	1.56	---
MEAN	1.56	1.51	1.64	1.64	1.61	1.57	1.58	1.55	1.61	1.61	1.60	1.59
MAX	1.99	1.69	1.69	1.72	1.70	1.71	1.68	1.69	1.88	2.17	2.17	1.71
MIN	1.25	.85	1.51	1.50	1.52	1.07	1.52	1.31	1.53	1.49	1.49	1.49

CAL YR 1988 MEAN 1.42 MAX 1.99 MIN .10
WTR YR 1989 MEAN 1.59 MAX 2.17 MIN .85

02286101 SOUTH NEW RIVER CANAL BELOW S-13, NEAR DAVIE, FL

LOCATION.--Lat 26°03'57", long 80°12'32", in SW¼ sec.25, T.50 S., R.41 E., Broward County, Hydrologic Unit 03090202, at pump station 13, 150 ft west of U.S. Highway 441, and 1.5 mi east of Davie.

PERIOD OF RECORD.--January 1955 to current year (gage heights). Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Gage records water levels below pump station 13. Stage is basically tidal, but at times is affected by gate operation and pumping at S-13. The stage record published is the maximum and minimum tide event for each calendar day.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 3.98 ft Sept. 8, 1965; minimum -1.97 ft Apr. 28, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 2.54 ft Oct. 9; minimum -0.92 ft Feb. 9.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.86	2.00	1.39	1.02	.91	1.35	1.13	1.34	1.35	2.03	1.25	1.53
2	1.80	1.84	1.01	.83	.84	1.27	1.19	1.40	1.48	1.97	1.22	1.64
3	1.85	2.07	1.31	.98	1.12	1.41	1.26	1.64	1.40	1.85	1.54	1.74
4	1.77	2.06	1.40	1.12	1.19	1.25	1.41	1.72	1.54	1.79	1.78	1.78
5	1.67	2.05	1.42	1.25	1.47	1.23	1.42	1.70	1.58	1.85	1.82	1.76
6	1.69	1.92	1.32	1.38	1.53	1.32	1.40	1.69	1.38	1.70	1.70	1.64
7	2.03	1.76	1.45	1.43	1.28	1.68	1.39	1.65	1.57	1.50	1.62	1.63
8	2.26	1.51	1.57	1.41	1.20	1.65	1.24	1.61	1.34	1.43	1.53	1.60
9	2.54	1.48	1.46	1.33	1.04	1.81	1.29	1.54	1.05	1.32	1.36	1.57
10	2.40	1.49	1.48	1.35	1.15	2.01	1.06	1.34	.84	1.27	1.23	1.71
11	2.42	1.44	1.52	1.11	1.47	2.19	1.03	1.41	.78	1.10	1.29	1.67
12	2.42	1.66	1.44	1.15	1.43	2.13	.97	1.34	.82	1.13	1.53	1.79
13	2.20	1.69	1.31	1.16	1.48	1.92	1.16	1.42	.81	1.12	1.79	1.85
14	2.12	1.34	1.36	1.19	.94	1.61	1.14	1.13	.91	1.13	1.85	1.91
15	2.14	1.31	1.52	1.16	.87	1.49	1.31	1.23	1.12	.96	1.88	1.92
16	2.12	1.52	1.43	.90	.99	1.29	1.32	1.17	1.18	1.17	1.97	1.88
17	2.07	1.26	1.71	1.08	1.10	1.31	1.16	1.18	1.08	1.26	1.84	1.88
18	1.90	1.39	1.20	.95	1.39	1.27	1.31	1.14	1.16	1.28	1.79	1.96
19	1.91	1.32	1.20	1.14	1.47	1.25	1.32	1.15	1.33	1.34	1.96	2.09
20	2.05	1.54	1.66	1.22	1.69	1.21	1.47	1.33	1.29	1.29	2.11	1.86
21	1.92	1.14	1.40	1.41	1.71	1.13	1.59	1.33	1.34	1.42	1.87	1.86
22	2.01	1.32	1.22	1.73	1.51	1.13	1.60	---	1.19	1.55	1.65	1.75
23	2.27	1.22	1.39	1.52	1.24	1.17	1.59	---	1.26	1.48	1.52	1.50
24	2.15	1.30	1.33	1.74	1.09	1.16	1.45	---	1.35	1.53	1.28	1.52
25	2.41	1.49	1.16	1.84	.98	1.12	1.33	---	1.18	1.51	1.30	1.45
26	2.30	1.77	1.10	1.63	1.09	1.11	1.23	---	1.38	1.70	1.41	1.22
27	2.27	1.64	1.33	1.28	1.19	1.24	1.27	---	1.46	1.69	1.45	1.70
28	2.17	1.45	1.04	1.35	1.31	1.07	1.32	---	1.61	1.49	1.36	1.83
29	1.82	1.23	1.06	1.04	---	1.04	1.38	---	1.81	1.49	1.49	1.90
30	1.89	1.39	.99	1.07	---	1.11	1.31	---	2.04	1.53	1.55	1.87
31	1.89	---	.96	.79	---	1.11	---	---	---	1.33	1.57	---
MEAN	2.07	1.55	1.33	1.24	1.24	1.39	1.30	---	1.29	1.46	1.60	1.73
MAX	2.54	2.07	1.71	1.84	1.71	2.19	1.60	---	2.04	2.03	2.11	2.09
MIN	1.67	1.14	.96	.79	.84	1.04	.97	---	.78	.96	1.22	1.22

CAL YR 1988 MEAN .29 MAX 2.54 MIN -.99

02286101 SOUTH NEW RIVER CANAL BELOW S-13, NEAR DAVIE, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.55	-.21	-.45	-.55	-.24	-.40	-.24	-.67	.33	-.50	-.02
2	.10	.56	-.22	-.44	-.59	-.23	-.33	-.48	-.62	.32	-.29	.09
3	.48	.54	-.08	-.49	-.59	-.10	-.43	-.48	-.64	.18	-.08	.28
4	.47	.71	-.01	-.51	-.53	-.16	-.54	-.45	-.60	.18	.19	.32
5	.54	.71	.01	-.54	-.46	-.36	-.70	-.46	-.57	.22	.26	.27
6	.54	.51	-.26	-.46	-.44	-.49	-.83	-.48	.30	-.06	.24	.16
7	.52	.13	-.25	-.41	-.69	-.30	-.71	-.55	-.34	-.01	.13	.14
8	.78	-.09	-.39	-.52	-.88	-.25	-.70	-.19	-.58	-.03	.22	.17
9	.95	-.27	-.31	-.61	-.92	-.20	-.72	-.51	-.64	-.01	-.04	.26
10	.88	-.27	-.46	-.55	-.70	.22	-.88	-.19	-.66	-.16	-.16	.20
11	1.00	-.31	-.27	-.63	-.34	.40	-.66	-.05	-.62	-.29	-.20	-.07
12	.93	-.15	-.47	-.64	-.18	.25	-.39	-.04	-.58	-.36	-.11	.19
13	.73	.00	-.52	-.68	-.28	.04	-.29	.01	-.64	-.35	.28	-.05
14	.70	-.37	-.48	-.55	-.54	.03	-.29	-.17	-.67	-.52	.25	-.08
15	.55	-.21	-.36	-.63	-.46	-.08	-.15	-.30	-.54	-.50	.15	.04
16	.65	-.15	-.16	-.62	-.47	-.06	-.04	-.21	-.51	-.45	.15	-.01
17	.52	-.35	-.22	-.64	-.46	-.08	-.24	-.35	-.62	-.42	-.01	-.17
18	.70	-.38	-.61	-.61	-.22	-.12	-.31	-.69	-.60	-.47	.07	.04
19	.59	-.37	-.69	-.61	-.23	-.21	-.32	-.53	-.50	-.47	-.01	.26
20	.39	-.48	-.24	-.56	-.07	-.25	-.29	-.59	-.54	-.38	.42	-.02
21	.30	-.61	-.45	-.44	-.03	-.46	-.11	-.48	-.67	-.28	.08	.16
22	.20	-.52	-.59	-.03	.03	-.53	-.15	-.61	-.58	-.09	.09	.15
23	.24	-.76	-.47	-.37	-.34	-.45	-.19	---	-.46	-.15	-.06	.02
24	.39	-.69	-.52	-.25	-.56	-.60	-.36	---	-.31	-.08	-.23	.00
25	.17	-.43	-.55	.27	-.37	-.67	-.45	---	-.46	-.11	-.38	-.08
26	.36	-.13	-.51	-.11	-.34	-.41	-.34	---	-.49	.05	-.28	-.27
27	.18	-.08	-.31	-.11	-.19	-.46	-.33	---	-.46	.02	-.17	-.17
28	.11	-.28	-.68	-.07	.00	-.52	-.10	---	-.12	-.32	-.29	.25
29	.17	-.32	-.43	-.35	---	-.47	-.13	---	-.03	-.34	-.33	.38
30	.23	-.01	-.45	-.44	---	-.36	-.14	---	.09	-.22	-.10	.31
31	.41	---	-.33	-.54	---	-.38	---	-.67	---	-.51	-.03	---
MEAN	.49	-.12	-.37	-.44	-.41	-.24	-.38	---	-.50	-.17	-.02	.09
MAX	1.00	.71	-.01	.27	.03	.40	-.04	---	.09	.33	.42	.38
MIN	.10	-.76	-.69	-.68	-.92	-.67	-.88	---	-.67	-.52	-.50	-.27

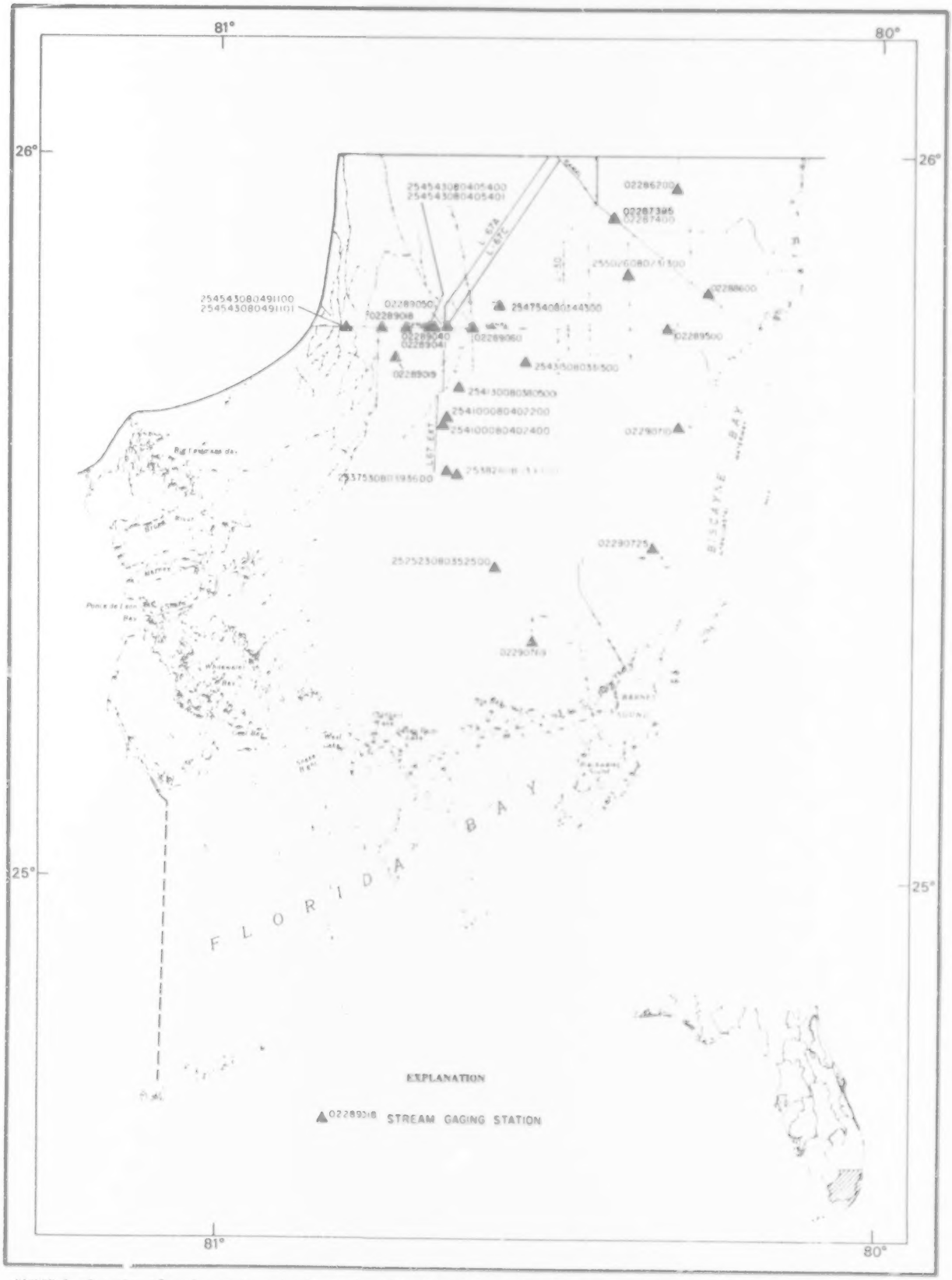


FIGURE 7. Location of gaging stations in the portion of the Everglades and southeastern coastal area south of latitude 26 degrees; Florida Bay and the Florida Keys

02286200 SNAKE CREEK CANAL AT NW 67TH AVENUE, NEAR HIALEAH, FL

LOCATION.--Lat 25°57'50", long 80°18'40", in SW¼ sec.36, T.51 S., R.40 E., Broward County, Hydrologic Unit 03090202, near center of span on downstream side of bridge at NW 67th Avenue, 6.0 mi north of Hialeah, Dade County, 10.9 mi upstream from salinity-control structure 29, and 11 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1959 to February 1962 (gage heights), March 1962 to current year. Records of gage heights prior to March 1962 are available in files of the Geological Survey.

REVISED RECORDS.--WRD FL-74-2A: 1969.

GAGE.--Water-stage and electromagnetic velocity meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (State Department of Transportation bench mark). Prior to Oct. 1, 1975, at datum 0.28 ft lower. Nov. 1, 1959 to Mar. 15, 1962, water-stage recorder 10 ft downstream at datum 0.28 ft lower.

REMARKS.--Estimated daily discharge: Oct. 12, Sept. 15-17. Records poor. Flow affected by regulation at salinity-control structure 29, pump structure on the N.W. 67 Ave Canal and, at times by tide, and is occasionally reversed. Discharge computed from continuous velocity record obtained from recording electromagnetic velocity meter.

AVERAGE DISCHARGE.--24 years, (water years 1963-86) 275 ft^3/s, 199,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,550 ft^3/s Mar. 10, 1969; maximum gage height, 4.53 ft Oct. 31, 1969; maximum daily reverse flow, 537 ft^3/s Sept. 8, 1965, minimum gage height, 0.58 ft June 22, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 632 ft^3/s July 2; maximum gage height, 2.96 ft July 6; no flow for many days; minimum gage height, 1.49 ft May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	64	22	74	77	58	.80	11	.00	609	92	131
2	92	---	18	74	73	114	4.5	24	.00	632	55	272
3	116	---	19	80	74	315	2.2	.06	.00	513	32	197
4	89	---	13	65	77	218	4.4	2.2	.00	517	32	165
5	36	---	26	62	78	126	5.6	3.6	.00	404	13	138
6	---	---	51	69	76	160	7.3	4.4	94	302	3.2	79
7	---	---	61	73	78	149	12	3.7	364	289	35	37
8	---	121	61	77	70	114	3.6	4.0	292	257	214	57
9	---	83	65	76	57	114	6.2	2.8	162	172	207	27
10	---	87	61	76	49	119	6.0	7.7	110	148	234	67
11	---	62	56	68	51	55	2.0	10	54	216	188	6.2
12	---	43	50	63	49	36	1.4	.99	8.6	13	114	3.5
13	144	48	53	62	43	30	6.5	.22	6.6	20	162	4.0
14	125	38	64	53	36	52	6.3	.00	3.3	56	159	52
15	91	47	63	63	34	49	15	27	1.1	35	188	3.0
16	84	66	69	60	35	47	85	19	.00	71	123	6.4
17	103	33	66	55	31	41	80	15	.17	143	109	---
18	67	24	60	54	39	38	36	173	.17	203	96	---
19	49	52	59	46	34	28	30	31	.34	226	129	---
20	42	29	65	47	34	33	17	4.0	25	159	234	269
21	39	15	71	56	33	35	4.7	2.5	17	162	270	219
22	29	12	72	117	58	30	4.3	.36	62	156	330	127
23	26	55	72	108	42	40	8.0	1.6	37	108	290	223
24	37	29	89	77	20	42	15	1.4	92	114	329	144
25	37	21	77	79	19	30	8.8	.00	63	139	156	158
26	31	33	87	81	20	16	5.7	.00	98	20	173	154
27	29	39	65	83	31	14	5.6	.00	272	85	168	154
28	23	32	74	83	49	19	4.3	.00	408	4.5	170	109
29	29	23	78	80	---	19	.98	.00	452	3.6	50	50
30	58	24	73	85	---	16	26	.06	570	23	103	94
31	63	---	74	82	---	8.7	---	.00	---	38	169	---
TOTAL	---	---	1814	2228	1367	2165.7	415.18	349.59	3172.28	5838.1	4618.2	---
MEAN	---	---	58.5	71.9	48.8	69.9	13.8	11.3	106	188	149	---
MAX	---	---	89	117	78	315	85	173	570	632	330	---
MIN	---	---	13	46	19	8.7	.80	.00	.00	3.6	3.2	---
AC-FT	---	---	3600	4420	2710	4300	824	693	6290	11580	9160	---

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02286200 SNAKE CREEK CANAL AT NW 67TH AVENUE, NEAR HIALEAH, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.27	2.24	2.22	2.19	2.15	2.11	1.86	1.88	1.89	2.57	2.22	2.30
2	2.31	2.22	2.20	2.19	2.13	2.22	1.84	1.87	1.83	2.53	2.27	2.30
3	2.26	2.22	2.18	2.14	2.11	2.25	1.82	1.84	1.79	2.54	2.27	2.32
4	2.28	2.13	2.18	2.13	2.09	2.27	1.80	1.80	1.76	2.38	2.25	2.29
5	2.25	2.21	2.18	2.12	2.08	2.31	1.78	1.76	1.71	2.50	2.22	2.28
6	2.19	2.25	2.17	2.12	2.06	2.25	1.77	1.74	1.81	2.59	2.19	2.28
7	2.20	2.20	2.18	2.11	2.04	2.15	1.74	1.73	2.37	2.38	2.20	2.33
8	2.26	2.20	2.17	2.11	2.02	2.17	1.72	1.70	2.35	2.30	2.28	2.29
9	2.26	2.20	2.17	2.11	2.00	2.26	1.70	1.65	2.33	2.28	2.31	2.31
10	2.16	2.20	2.17	2.11	1.98	2.16	1.67	1.62	2.31	2.22	2.28	2.25
11	2.23	2.23	2.17	2.13	1.96	2.22	1.64	1.58	2.34	1.95	2.27	2.33
12	2.16	2.27	2.18	2.12	1.94	2.25	1.61	1.55	2.31	2.23	2.28	2.33
13	2.20	2.29	2.17	2.11	1.93	2.26	1.58	1.53	2.26	2.30	2.23	2.30
14	2.18	2.26	2.16	2.11	1.91	2.24	1.56	1.52	2.21	2.23	2.25	2.20
15	2.25	2.25	2.16	2.10	1.89	2.22	1.55	1.69	2.15	2.24	2.28	2.22
16	2.28	2.19	2.15	2.09	1.86	2.21	1.66	2.24	2.08	2.32	2.33	2.26
17	2.22	2.23	2.14	2.08	1.84	2.20	1.90	2.32	2.02	2.28	2.32	2.30
18	2.25	2.29	2.12	2.07	1.82	2.18	1.91	2.12	1.97	2.32	2.29	2.40
19	2.28	2.17	2.11	2.06	1.81	2.16	1.87	2.21	1.93	2.33	2.38	2.41
20	2.28	2.21	2.12	2.05	1.80	2.14	1.84	2.26	1.93	2.30	2.64	2.32
21	2.29	2.26	2.12	2.06	1.78	2.11	1.84	2.24	1.96	2.33	2.55	2.23
22	2.28	2.28	2.13	2.16	1.89	2.08	1.81	2.20	2.07	2.32	2.59	2.29
23	2.28	2.15	2.16	2.19	1.99	2.06	1.79	2.16	2.19	2.32	2.40	2.31
24	2.28	2.17	2.23	2.22	1.95	2.05	1.76	2.15	2.25	2.31	2.27	2.35
25	2.27	2.22	2.25	2.22	1.92	2.03	1.73	2.20	2.34	2.26	2.25	2.31
26	2.22	2.23	2.24	2.21	1.92	2.00	1.70	2.16	2.43	2.36	2.30	2.35
27	2.22	2.24	2.24	2.19	1.92	1.96	1.67	2.11	2.40	2.23	2.29	2.28
28	2.25	2.25	2.21	2.19	1.95	1.92	1.64	2.06	2.40	2.32	2.30	2.30
29	2.25	2.23	2.19	2.18	---	1.89	1.62	2.01	2.66	2.33	2.33	2.34
30	2.24	2.22	2.19	2.17	---	1.85	1.74	1.98	2.73	2.29	2.29	2.30
31	2.24	---	2.19	2.16	---	1.85	---	1.94	---	2.32	2.28	---
MEAN	2.24	2.22	2.18	2.14	1.96	2.13	1.74	1.93	2.16	2.33	2.31	2.30
MAX	2.31	2.29	2.25	2.22	2.15	2.31	1.91	2.32	2.73	2.59	2.64	2.41
MIN	2.16	2.13	2.11	2.05	1.78	1.85	1.55	1.52	1.71	1.95	2.19	2.20

CAL YR 1988 MEAN 2.20 MAX 2.88 MIN 1.66
WTR YR 1989 MEAN 2.14 MAX 2.73 MIN 1.52

255026080231300 SNAPPER CREEK CANAL EXTENSION AT NW 74TH STREET, NEAR HIALEAH, FL

LOCATION.--Lat 25°50'26", long 80°23'13", in SE sec.12, T.53 S., R.39 E., Dade County, Hydrologic Unit 03090202, on the north side of a short spur canal that runs west from the main canal at NW 74th Street, and 5.5 mi usptream from the Tamiami Canal.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 4.47 ft May 29, 1984; minimum, 0.21 ft June 5, 6, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.00 ft Aug. 20; minimum, 0.21 ft June 5, 6.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.28	2.24	1.91	1.62	1.24	1.15	1.21	.78	.32	3.25	2.07	3.20
2	3.45	2.21	1.87	1.61	1.22	1.19	1.09	.71	.29	3.45	1.99	3.14
3	3.35	2.33	1.85	1.59	1.21	1.18	1.00	.66	.28	3.45	1.97	3.06
4	3.27	2.45	1.83	1.56	1.20	1.18	.92	.61	.27	3.50	2.21	3.00
5	3.24	2.45	1.80	1.53	1.18	1.17	.89	.58	.24	3.40	2.09	2.93
6	3.19	2.47	1.78	1.50	1.16	1.17	.87	.58	.46	3.30	2.01	2.87
7	3.16	2.42	1.77	1.49	1.14	1.19	.82	.57	1.44	3.21	1.94	2.83
8	3.11	2.37	1.74	1.48	1.12	1.23	.78	.54	1.25	3.11	2.18	2.76
9	3.07	2.33	1.73	1.45	1.12	1.20	.75	.51	1.19	3.00	2.20	2.74
10	3.03	2.29	1.72	1.48	1.08	1.16	.71	.48	1.17	2.89	2.36	2.69
11	2.97	2.26	1.72	1.51	1.07	1.11	.69	.45	1.15	2.79	2.29	2.62
12	2.92	2.23	1.72	1.48	1.04	1.08	.65	.41	1.11	2.70	2.44	2.56
13	2.87	2.21	1.71	1.45	1.01	1.06	.60	.39	1.07	2.62	2.57	2.49
14	2.82	2.18	1.67	1.43	.99	1.04	.59	.39	1.03	2.53	2.85	2.45
15	2.77	2.20	1.66	1.41	.95	1.02	.57	.42	.98	2.45	3.28	2.48
16	2.73	2.20	1.65	1.40	.92	1.01	.63	.47	.93	2.38	3.24	2 49
17	2.69	2.17	1.63	1.38	.90	1.01	.84	.46	.90	2.37	3.16	2.48
18	2.66	2.15	1.58	1.37	.89	.99	.78	.54	.85	2.51	3.23	3.00
19	2.63	2.11	1.57	1.35	.88	.97	.71	.53	.81	2.56	3.49	3.60
20	2.59	2.08	1.58	1.32	.86	.93	.69	.51	.82	2.49	3.89	3.45
21	2.57	2.08	1.60	1.31	.84	.89	.76	.48	.79	2.42	3.87	3.32
22	2.54	2.06	1.62	1.43	1.04	.87	.73	.46	.84	2.38	3.85	3.20
23	2.52	2.06	1.65	1.41	1.19	.92	.69	.44	.90	2.33	3.80	3.11
24	2.49	2.05	1.73	1.36	1.07	1.00	.66	.45	.94	2.28	3.68	3.03
25	2.46	2.02	1.72	1.34	1.02	.94	.63	.48	1.30	2.34	3.55	2.98
26	2.43	1.98	1.71	1.30	1.03	.89	.61	.45	1.95	2.30	3.51	2.95
27	2.39	1.97	1.69	1.29	1.05	.86	.61	.41	2.49	2.24	3.48	2.87
28	2.35	1.95	1.67	1.29	1.08	.82	.61	.40	2.88	2.18	3.37	2.81
29	2.32	1.92	1.66	1.28	---	.78	.60	.37	3.15	2.13	3.30	2.74
30	2.29	1.91	1.64	1.26	---	.74	.71	.36	3.07	2.09	3.22	2.71
31	2.26	---	1.62	1.25	---	.91	---	.34	---	2.07	3.26	---
MEAN	2.79	2.18	1.70	1.42	1.05	1.02	.75	.49	1.16	2.67	2.91	2.89
MAX	3.45	2.47	1.91	1.62	1.24	1.23	1.21	.78	3.15	3.50	3.89	3.60
MIN	2.26	1.91	1.57	1.25	.84	.74	.57	.34	.24	2.07	1.94	2.45

CAL YR 1988 MEAN 2.52 MAX 4.30 MIN 1.19
WTR YR 1989 MEAN 1.76 MAX 3.89 MIN .24

02286399 MIAMI CANAL ABOVE S354 AND S-3 AT LAKE HARBOR, FL

LOCATION.--Lat 26°41'55", long 80°48'25", in SE¼ sec.35, T.43 S., R.35 E., Palm Beach County, Hydrologic Unit 03090202, in pump station 3 at Lake Okeechobee, 0.4 mi upstream from U.S. Highway 27, in Lake Harbor.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year (gage heights). Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Estimated daily stage: May 9, 10. Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Oct. 1, 1957, to Sept. 30, 1959, at datum 0.05 ft lower and Oct. 1, 1959, to Feb. 7, 1962, at datum 0.22 ft lower.

REMARKS.--Water-level records are those for Lake Okeechobee at pump station 3. Stage is affected by S-3 pumping, S354 gate operations, wind, and seiche.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.78 ft Mar. 7, 1983; minimum, 9.50 ft Aug. 3, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 16.39 ft Oct. 7; minimum, 10.66 ft Aug. 8.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.83	15.06	15.11	14.39	14.09	13.31	13.45	12.70	11.90	11.34	11.19	11.34
2	15.73	15.10	15.41	14.39	14.05	13.32	13.12	12.85	11.87	11.36	11.14	11.34
3	15.64	14.87	15.00	14.35	14.00	13.40	12.98	12.93	11.74	11.34	11.20	11.41
4	15.75	14.97	14.82	14.56	13.98	13.44	12.83	12.81	11.67	11.34	11.25	11.56
5	15.85	14.95	14.83	14.35	13.92	13.42	12.95	12.75	11.60	11.32	11.17	11.63
6	16.10	15.18	14.70	14.22	13.95	13.43	13.19	12.72	11.55	11.33	11.06	11.68
7	16.03	15.14	14.66	14.23	13.92	13.84	13.02	12.83	11.54	11.35	10.93	11.72
8	15.96	15.21	14.67	14.22	13.97	14.25	12.96	12.65	11.42	11.36	10.96	11.75
9	15.72	15.18	14.64	14.23	14.42	14.12	12.90	12.58	11.47	11.35	10.97	11.67
10	15.72	15.13	14.67	14.23	14.27	14.21	12.82	12.48	11.60	11.33	11.04	11.65
11	15.59	15.13	14.51	14.23	13.98	13.98	13.02	12.57	11.57	11.29	11.15	11.67
12	15.62	15.13	14.80	14.16	14.02	13.62	13.02	12.66	11.46	11.22	11.16	11.67
13	15.77	15.11	14.96	14.19	13.77	13.56	12.85	12.40	11.42	11.18	11.27	11.64
14	15.75	15.19	14.73	14.14	13.70	13.54	12.80	12.44	11.41	11.11	11.23	11.56
15	15.61	15.13	14.66	14.11	13.75	13.51	12.75	12.39	11.27	11.12	11.19	11.55
16	15.50	15.02	14.61	14.17	13.76	13.55	12.88	12.48	11.18	11.08	11.26	11.55
17	15.58	15.03	14.88	14.22	13.74	13.52	12.95	12.43	11.28	11.07	11.26	11.67
18	15.41	15.01	14.97	14.18	13.80	13.53	13.05	12.50	11.34	11.07	11.27	11.84
19	15.32	14.94	14.60	14.17	13.79	13.51	12.96	12.45	11.29	11.15	11.31	11.79
20	15.32	14.90	14.50	14.08	13.55	13.38	12.99	12.39	11.26	11.14	11.34	11.90
21	15.31	14.82	14.48	14.36	13.36	13.34	13.10	12.30	11.27	11.18	11.34	11.94
22	15.32	14.66	14.51	14.28	13.55	13.35	13.22	12.22	11.26	11.17	11.36	11.61
23	15.32	14.46	14.49	14.38	13.87	13.19	13.00	12.22	11.27	11.22	11.43	11.80
24	15.22	15.21	14.48	14.35	13.83	13.43	12.91	12.21	11.23	11.29	11.39	11.92
25	15.29	15.00	14.48	14.24	13.60	13.49	12.89	12.25	11.21	11.29	11.37	11.97
26	15.22	14.81	14.55	14.15	13.38	13.33	12.85	12.17	11.16	11.28	11.39	12.01
27	15.13	14.74	14.47	14.15	13.28	13.30	12.90	12.18	11.09	11.21	11.39	12.10
28	15.14	15.05	14.41	14.18	13.27	13.23	12.85	12.09	11.06	11.14	11.41	12.13
29	15.14	15.12	14.44	14.13	---	13.09	12.72	12.10	11.18	11.16	11.50	12.07
30	15.12	14.83	14.42	14.12	---	13.03	12.75	12.04	11.24	11.14	11.38	12.02
31	15.07	---	14.36	14.11	---	13.00	---	11.98	---	11.14	11.36	---
MEAN	15.52	15.01	14.67	14.23	13.81	13.49	12.96	12.44	11.39	11.23	11.25	11.74
MAX	16.10	15.21	15.41	14.56	14.42	14.25	13.45	12.93	11.90	11.36	11.50	12.13
MIN	15.07	14.46	14.36	14.08	13.27	13.00	12.72	11.98	11.06	11.07	10.93	11.34

CAL YR 1988 MEAN 15.59 MAX 16.74 MIN 14.36
WTR YR 1989 MEAN 13.14 MAX 16.10 MIN 10.93

02286400 MIAMI CANAL AT S354, AND S-3, AT LAKE HARBOR, FL

LOCATION.--Lat 26°41'55", long 80°48'25", in SE¼ sec.35, T.43 S., R.35 E., Palm Beach County, Hydrologic Unit 03090202, at gate structure S354 and pump station 3 at Lake Okeechobee, 0.4 mi upstream from U.S. Highway 27 in Lake Harbor.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1939 to June 1943 (published as Miami Canal at Lake Harbor), October 1957 to current year. Prior to October 1940, monthly discharge only, published in WSP 1304.

GAGE.--Dual graphic water-stage recorder, digital lake and canal water-stage recorders, electromagnetic velocity meter, gate-opening indicator and pump tachometer. Datum of gage is National Geodetic Vertical Datum of 1929. Dec. 1, 1939 to June 30, 1943, nonrecording gage at site 0.4 mi downstream at same datum. Oct. 1, 1957 to Sept. 30, 1959, dual water-stage recorder at present site, at datum 0.05 ft lower and Oct. 1, 1959 to Feb. 7, 1962, at datum 0.22 ft lower. Oct. 1, 1957 to Sept. 30, 1968, two deflection vane recorders. From 1981 WY to April 1, 1987, electromagnetic velocity meter and digital recorder. Electromagnetic velocity meter reinstalled May 11, 1988.

REMARKS.--Estimated daily stage: May 9, 10; estimated daily discharge: May 9, 10, Aug. 9. Records good except for those estimated stage and discharge which are fair. Flow regulated by gates and pump station at Lake Okeechobee. Discharge is summation of S354 flow, S-3 pumpage and syphoning. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, or by the operation of pump station 3 (negative figure indicates reverse flow). Discharge computed from relations between discharge, head, gate openings, and pump tachometer.

COOPERATION.--S-3 pump, syphon record and S354 gate-operation record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--32 years, (water years 1957-89), 56.9 ft^3/s, 41,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,280 ft^3/s Mar. 24, 1966; maximum gage height (Miami Canal) 14.92 ft, present datum, Mar. 21, 1960 and Oct. 2, 1965; maximum daily reverse flow, 2,790 ft^3/s Mar. 26, 1970; no flow on some days each year, minimum gage height (Miami Canal), 7.51 ft Oct. 28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,060 ft^3/s Oct. 1; maximum gage height (Miami Canal), 13.16 ft Nov. 4; maximum daily reverse flow, 2,620 ft^3/s Sept. 25, no flow for some days during the year; minimum gage height, 9.14 ft Apr. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	855	591	278	274	248	772	132	653	94	65	.00
2	336	606	616	269	265	.00	648	59	660	96	65	.00
3	.00	165	585	261	255	.00	585	377	639	72	63	.00
4	543	.00	576	276	258	.00	507	647	604	66	316	.00
5	817	.00	563	377	251	.00	576	810	621	72	386	.00
6	395	.00	531	513	257	358	599	702	776	89	327	.00
7	337	.00	533	494	261	184	622	881	684	97	384	.00
8	542	.00	554	463	379	.00	558	833	422	85	98	.00
9	520	.00	555	466	523	.00	532	911	557	86	-121	.00
10	531	.00	539	461	669	274	639	1020	598	195	.00	.00
11	525	.00	512	278	758	599	840	1000	620	257	.00	.00
12	538	.00	180	.00	766	567	751	910	605	388	.00	.00
13	687	.00	.00	98	730	734	784	818	680	499	.00	.00
14	829	441	.00	243	745	787	689	809	696	455	.00	-51
15	791	628	186	246	787	797	347	495	650	381	.00	-1090
16	763	594	284	254	814	790	.00	505	635	313	.00	-725
17	767	589	293	248	827	696	.00	624	691	167	.00	-1030
18	747	587	303	236	827	637	.00	651	676	103	.00	-1080
19	616	586	298	237	810	607	238	661	653	48	.00	-1830
20	534	583	291	106	771	583	551	620	483	68	.00	-1820
21	530	239	283	.00	729	600	.00	594	239	76	.00	-876
22	531	.00	105	.00	245	606	.00	598	157	51	.00	-802
23	531	.00	.00	.00	613	565	.00	629	249	105	.00	-1960
24	527	163	.00	.00	856	589	619	585	283	93	.00	-2190
25	540	318	.00	.00	791	599	803	561	252	97	.00	-2620
26	553	305	.00	.00	655	617	870	519	223	95	.00	-2260
27	560	303	205	.00	623	642	929	590	114	89	.00	-492
28	696	313	299	.00	704	660	904	605	70	78	.00	.00
29	841	479	293	.00	---	635	821	624	117	84	.00	.00
30	846	577	291	189	---	654	315	649	69	79	.00	.00
31	856	---	281	285	---	665	---	606	---	78	.00	---
TOTAL	18889.00	8331.00	9747.00	6278.00	16443	14693.00	15499.00	20025	14376	4556	1583.00	-18726.00
MEAN	609	278	314	203	587	474	517	646	479	147	51.1	-624
MAX	1060	855	616	513	856	797	929	1020	776	499	386	.00
MIN	.00	.00	.00	.00	245	.00	.00	59	69	48	-121	-2620
AC-FT	37470	16520	19330	12450	32610	29140	30740	39720	28510	9040	3140	-37140

CAL YR 1988 TOTAL 117468.00 MEAN 321 MAX 1180 MIN .00 AC-FT 233000
WTR YR 1989 TOTAL 111694.00 MEAN 306 MAX 1060 MIN -2620 AC-FT 221500

02286400 MIAMI CANAL AT S354, AND S-3, AT LAKE HARBOR, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.30	11.64	11.43	11.14	10.89	10.46	11.17	11.48	9.91	10.84	10.58	10.14
2	12.12	11.92	11.41	11.34	11.05	9.91	11.23	10.67	9.83	10.59	10.57	10.36
3	11.10	11.80	11.38	11.47	11.24	10.90	11.06	11.06	9.82	10.25	10.38	11.48
4	11.07	12.72	11.32	11.34	11.15	10.70	11.13	10.79	9.96	11.06	10.28	12.17
5	11.95	11.86	11.48	11.20	11.22	9.89	11.07	10.70	9.79	11.55	10.68	11.47
6	11.85	11.85	11.72	11.45	11.12	9.87	10.92	11.19	9.93	11.61	10.57	11.29
7	11.24	10.96	11.66	11.65	11.01	11.04	11.03	11.26	10.77	11.19	10.46	11.00
8	11.59	11.12	11.44	11.96	11.03	11.12	11.17	11.06	10.99	11.23	11.00	11.57
9	11.69	11.33	11.40	11.94	11.42	10.32	11.16	10.76	10.82	11.29	11.62	12.00
10	11.52	11.10	11.60	11.99	11.49	9.83	11.32	10.57	10.65	11.16	11.56	12.06
11	11.48	10.89	11.75	11.98	11.27	10.19	11.66	10.58	10.46	11.03	11.65	11.77
12	11.32	10.58	11.82	11.54	11.23	10.23	11.87	11.20	10.24	10.65	11.55	11.56
13	11.32	10.17	11.42	11.44	11.21	10.32	11.55	11.37	10.40	10.58	11.71	11.42
14	11.73	10.27	11.29	11.59	11.09	10.64	11.69	11.41	10.35	10.59	11.58	11.78
15	11.94	10.96	11.04	11.51	10.85	10.54	11.78	11.48	10.33	10.70	10.35	11.37
16	12.08	11.29	11.21	11.41	10.65	10.62	10.77	10.77	10.26	10.75	11.70	11.22
17	12.13	11.37	11.27	11.56	10.53	11.25	10.30	10.57	10.21	10.99	11.20	11.28
18	12.15	11.38	11.10	11.79	10.59	11.63	11.04	10.45	10.20	11.07	11.38	10.58
19	12.27	11.32	10.85	11.75	10.71	11.78	10.92	11.00	10.39	11.23	11.24	11.14
20	12.32	11.31	10.92	11.64	10.77	11.78	11.48	10.91	10.72	10.22	11.35	10.91
21	12.35	11.56	11.10	11.50	10.87	11.65	11.06	10.73	11.12	10.63	11.64	11.49
22	12.34	11.58	11.39	11.77	10.44	11.62	10.24	10.67	11.26	10.53	11.35	11.46
23	12.34	11.10	10.94	11.70	9.65	11.69	9.70	10.57	11.21	10.58	10.39	10.81
24	12.29	10.41	10.66	11.01	10.39	11.80	9.96	10.42	11.12	10.83	10.75	11.03
25	12.22	10.75	10.45	10.78	10.66	11.81	11.44	10.32	11.11	11.13	10.54	10.30
26	12.00	10.89	10.22	10.72	11.36	11.54	11.12	10.18	11.08	11.12	10.64	9.93
27	11.82	10.87	10.30	10.71	11.45	11.37	10.93	10.21	11.09	10.91	10.84	11.06
28	11.67	10.91	10.63	10.61	10.95	11.19	10.83	10.23	11.73	10.95	10.94	12.18
29	11.83	11.06	10.83	10.34	---	11.20	11.03	10.30	11.76	10.80	10.95	11.95
30	11.77	11.32	10.86	10.39	---	11.02	12.30	10.19	11.03	10.79	10.72	11.72
31	11.64	---	11.03	10.65	---	10.99	---	9.93	---	10.69	10.52	---
MEAN	11.85	11.21	11.16	11.35	10.94	10.93	11.10	10.74	10.62	10.89	10.99	11.31
MAX	12.35	12.72	11.82	11.99	11.49	11.81	12.30	11.48	11.76	11.61	11.71	12.18
MIN	11.07	10.17	10.22	10.34	9.65	9.83	9.70	9.99	9.79	10.22	10.28	9.93

CAL YR 1988 MEAN 11.27 MAX 12.72 MIN 9.76
WTR YR 1989 MEAN 11.09 MAX 12.72 MIN 9.65

264514080550700 INDUSTRIAL CANAL AT CLEWISTON, FL

LOCATION.--Lat 26°45'14", long 80°55'07", in NW¼ sec.14, T.43 S., R.34 E., Hendry County, Hydrologic Unit 03090202, on south side of U.S. Highway 27 bridge, 0.8 mi south of Okeechobee Waterway, and 0.8 mi east of Clewiston post office.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD --August 1976 to September 1979, October 1979 to September 1981 (gage heights), October 1982 to current year.

GAGE.--Water-stage recorder and electromagnetic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1979, at datum 0.24 ft lower.

REMARKS.--Records poor. Flow regulated by hurricane gate at Lake Okeechobee.

AVERAGE DISCHARGE.--8 years (water years 1977-79, 1983-87), 72.7 ft^3/s, 52,900 acre ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 740 ft^3/s Feb. 24, 1989; maximum gage height, 19.17 ft Mar. 7, 1983; maximum daily reverse flow, 1,400 ft^3/s July 4, 1984; minimum gage height, 9.60 ft July 12, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 740 ft^3/s Feb. 24; maximum gage height, 16.43 ft Oct. 7; maximum daily reverse flow, 356 ft^3/s Sept. 5; minimum gage height, 10.63 ft Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	185	21	98	18	125	204	---	319	-73	104	157
2	24	160	55	97	35	56	91	---	357	-47	123	50
3	91	84	102	84	71	-230	110	---	313	-49	96	-267
4	178	-204	134	154	136	-279	107	---	292	-14	143	-344
5	277	-154	143	111	80	-157	84	---	381	-21	209	-356
6	220	-125	148	126	51	-88	182	---	309	-3.5	177	-291
7	225	-40	108	105	73	-155	226	---	50	23	187	-99
8	186	-21	124	116	143	-204	152	---	2.8	55	-173	-35
9	164	56	138	91	122	-134	140	---	58	95	-201	27
10	256	-29	155	87	74	-52	113	146	-7.4	162	-230	39
11	221	18	85	111	67	33	189	243	20	283	-237	156
12	231	19	89	112	111	17	73	304	18	335	-134	137
13	279	16	185	104	95	16	74	198	113	311	-195	124
14	218	64	76	111	122	70	-16	237	169	268	-143	298
15	166	60	103	65	119	362	-84	-316	24	184	-14	275
16	125	20	68	30	207	304	---	-196	31	79	-91	5.7
17	173	109	89	114	172	152	---	-113	96	-60	-30	22
18	158	171	99	115	127	120	---	86	181	-75	34	-71
19	193	89	40	90	102	109	---	88	120	-118	-2.8	-297
20	202	41	92	80	111	143	---	93	60	-183	-217	-269
21	148	57	36	54	35	126	---	116	65	-166	-156	-120
22	208	20	76	-99	109	11	---	146	20	-149	-90	16
23	183	29	66	-107	686	5.1	---	239	22	-114	-48	-6.0
24	179	-2.1	86	-110	740	19	---	310	27	-31	2.0	-35
25	219	15	66	-40	199	14	---	345	13	-115	79	-191
26	155	17	154	-12	-63	43	---	334	21	-7.9	67	-114
27	148	4.6	138	7.9	2.2	133	---	339	.99	35	76	11
28	138	22	61	-20	60	150	---	322	-54	25	114	-27
29	171	44	117	-10	---	90	---	297	-45	99	103	-28
30	242	36	130	37	---	118	---	320	-49	71	91	-.80
31	207	---	105	2.9	---	191	---	386	---	116	167	---
TOTAL	5629	761.5	3180	1764.8	3804.2	1158.1	---	---	2907.39	914.6	-195.8	-1233.10
MEAN	182	25.4	103	56.9	136	37.4	---	---	96.9	29.5	-6.32	-41.1
MAX	279	185	185	154	740	362	---	---	381	335	209	298
MIN	24	-204	21	-110	-63	-279	---	---	-54	-183	-237	-356
AC-FT	11170	1510	6310	3500	7550	2300	---	---	5770	1810	-388	-2450

264514080550700 INDUSTRIAL CANAL AT CLEWISTON, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.98	15.12	15.11	14.48	14.13	13.41	13.48	12.84	12.06	11.41	11.30	11.43
2	15.86	15.18	15.32	14.47	14.11	13.43	13.33	12.97	11.99	11.44	11.24	11.45
3	15.74	15.07	15.02	14.39	14.10	13.51	13.18	13.04	11.86	11.44	11.29	11.55
4	15.84	15.11	14.87	14.57	14.07	13.59	13.10	13.02	11.82	11.43	11.34	11.73
5	15.95	15.06	14.86	14.46	14.03	13.59	13.11	12.91	11.73	11.42	11.28	11.78
6	16.15	15.25	14.78	14.33	14.06	13.56	13.18	12.87	11.69	11.46	11.15	11.80
7	16.03	15.28	14.75	14.35	14.03	13.83	13.02	12.92	11.66	11.51	11.02	11.84
8	15.98	15.29	14.76	14.33	14.05	14.07	13.03	12.93	11.59	11.49	11.06	11.84
9	15.82	15.30	14.73	14.34	14.39	13.91	13.02	12.73	11.64	11.48	11.08	11.80
10	15.78	15.23	14.74	14.34	14.25	14.00	12.95	12.56	11.73	11.44	11.14	11.78
11	15.67	15.22	14.61	14.37	14.00	13.89	13.09	12.62	11.71	11.38	11.29	11.79
12	15.69	15.23	14.83	14.28	13.99	13.67	13.09	12.70	11.62	11.31	11.29	11.78
13	15.81	15.20	14.88	14.27	13.88	13.64	12.97	12.52	11.57	11.25	11.39	11.74
14	15.82	15.28	14.77	14.27	13.85	13.64	12.94	12.52	11.56	11.20	11.34	11.66
15	15.66	15.24	14.74	14.20	13.88	13.64	12.82	12.52	11.47	11.22	11.29	11.64
16	15.58	15.14	14.68	14.23	13.87	13.64	12.99	12.59	11.44	11.19	11.35	11.69
17	15.62	15.13	14.75	14.26	13.86	13.66	13.11	12.56	11.49	11.18	11.36	11.74
18	15.49	15.16	14.90	14.26	13.89	13.63	13.19	12.68	11.50	11.22	11.38	11.88
19	15.42	15.09	14.68	14.27	13.87	13.60	13.09	12.63	11.43	11.28	11.46	11.91
20	15.42	15.02	14.60	14.16	13.71	13.54	13.00	12.50	11.39	11.24	11.56	12.02
21	15.37	15.03	14.58	14.47	13.54	13.47	13.15	12.41	11.40	11.31	11.46	11.89
22	15.37	14.93	14.60	14.26	13.57	13.50	13.27	12.35	11.41	11.35	11.51	11.73
23	15.37	14.54	14.58	14.30	13.58	13.32	13.11	12.34	11.39	11.40	11.57	11.87
24	15.29	15.17	14.57	14.36	13.63	13.48	13.04	12.31	11.33	11.48	11.52	12.01
25	15.37	15.10	14.57	14.31	13.59	13.50	12.98	12.34	11.32	11.45	11.48	12.07
26	15.32	14.98	14.63	14.24	13.45	13.42	12.96	12.30	11.26	11.38	11.48	12.12
27	15.25	14.90	14.59	14.21	13.38	13.44	12.94	12.30	11.20	11.31	11.49	12.24
28	15.26	15.07	14.53	14.24	13.38	13.42	12.88	12.22	11.18	11.23	11.52	12.30
29	15.25	15.18	14.53	14.21	---	13.30	12.90	12.27	11.25	11.25	11.61	12.25
30	15.21	14.93	14.52	14.17	---	13.16	12.90	12.23	11.31	11.24	11.48	12.19
31	15.15	---	14.48	14.17	---	13.07	---	12.16	---	11.24	11.46	---
MEAN	15.60	15.11	14.73	14.31	13.86	13.57	13.06	12.58	11.53	11.34	11.36	11.85
MAX	16.15	15.30	15.32	14.57	14.39	14.07	13.48	13.04	12.06	11.51	11.61	12.30
MIN	15.15	14.54	14.48	14.16	13.38	13.07	12.82	12.16	11.18	11.18	11.02	11.43

CAL YR 1988 MEAN 15.66 MAX 16.61 MIN 14.48
WTR YR 1989 MEAN 13.24 MAX 16.15 MIN 11.02

02287395 MIAMI CANAL EAST OF LEVEE 30, NEAR MIAMI, FL

LOCATION.--Lat 25°56'28", long 80°26'23", in NE¼ sec.9, T.52 S., R.39 E., Dade County, Hydrologic Unit 03090202, south of State Highway 27 approximately 800 ft on south bank 1000 ft downstream from control structure 32, 14.1 mi upstream from salinity-control structure, 19.5 mi northwest of Miami, and 19.8 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1959 to current year. Published as "at broken dam, near Miami" November 1959 to September 1967, and October 1984 to November 1988.

GAGE.--Water-stage and velocity-meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Dade County bench mark). Prior to January 20, 1968, October 1984 to November 1988 at site 0.5 mi downstream at same datum.

REMARKS.--Estimated daily stage: Dec. 15, discharge: Dec. 15, Jan. 17 and May 22. Records fair, except those for estimated daily stage and discharge which are poor. Flow affected by regulation at downstream salinity-control structure and by upstream storage releases at control structures 31, 32, and 32A. Discharge computed from continuous velocity record obtained from recording velocity meter.

AVERAGE DISCHARGE.--24 years (Water years 1960-84), 236 ft^3/s, 170,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,090 ft^3/s Mar. 20, 1970; maximum gage height, 6.50 ft July 1, 1982; no flow for many days in 1980; minimum gage height, 1.40 ft May 31, 1962 (at site then in use).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 307 ft^3/s Feb. 28; maximum gage height, 3.70 ft Aug. 20; minimum daily dischage, 40 ft^3/s Aug. 13, 14; minimum gage height, 1.64 ft June 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	98	81	173	58	---	57	62	57	50
2			---	94	77	67	62	---	54	65	53	52
3			---	90	69	73	58	---	54	65	47	53
4			---	93	67	66	60	---	52	62	44	52
5			---	---	64	67	57	---	53	66	46	49
6			---	---	59	65	51	---	57	72	45	50
7			---	---	57	64	60	---	60	69	45	49
8			---	---	58	78	59	---	65	66	47	49
9			---	---	64	75	60	---	65	64	46	52
10			---	---	80	68	57	---	61	60	42	50
11			---	---	76	69	54	---	59	60	42	49
12			---	---	85	60	55	---	56	62	42	49
13			---	---	78	62	54	---	57	61	40	47
14			---	---	76	66	58	---	58	59	40	48
15			---	---	71	72	56	---	57	59	43	51
16			86	---	59	68	52	---	57	56	42	51
17			88	71	57	63	57	---	50	55	43	53
18			85	80	63	66	55	---	48	51	47	54
19			92	77	60	60	52	---	48	56	48	61
20			100	70	61	58	53	---	50	55	53	63
21			104	73	51	63	48	---	51	55	54	60
22			103	69	52	64	54	77	52	54	54	61
23			99	102	67	62	53	61	52	51	55	62
24			92	90	168	64	122	56	53	49	55	62
25			90	86	287	60	200	53	54	45	54	62
26			91	86	300	61	194	55	56	46	49	66
27			90	85	299	61	187	55	59	59	50	70
28			91	81	307	60	185	55	66	53	49	74
29			94	86	---	60	---	54	65	49	49	74
30			96	85	---	58	---	56	59	52	47	74
31			102	81	---	58	---	55	---	55	51	---
TOTAL			---	---	2893	2111	---	---	1685	1793	1479	1697
MEAN			---	---	103	68.1	---	---	56.2	57.8	47.7	56.6
MAX			---	---	307	173	---	---	66	72	57	74
MIN			---	---	51	58	---	---	48	45	40	47
AC-FT			---	---	5740	4190	---	---	3340	3560	2930	3370

02287395 MIAMI CANAL EAST OF LEVEE 30, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	2.54	2.37	2.89	2.09	---	1.81	3.30	2.77	2.84
2			---	2.53	2.35	2.49	2.08	---	1.76	3.39	2.63	2.85
3			---	2.52	2.34	2.55	2.06	---	1.74	3.31	2.56	2.84
4			---	2.50	2.32	2.47	2.03	---	1.71	3.23	2.57	2.82
5			---	---	2.32	2.43	2.01	---	1.68	3.12	2.52	2.83
6			---	---	2.30	2.39	1.98	---	1.94	3.04	2.49	2.80
7			---	---	2.27	2.38	1.96	---	2.76	2.97	2.49	2.78
8			---	---	2.24	2.38	1.95	---	2.55	2.92	2.82	2.77
9			---	---	2.21	2.36	1.93	---	2.42	2.89	2.78	2.80
10			---	---	2.18	2.33	1.90	---	2.32	2.88	2.75	2.79
11			---	---	2.17	2.31	1.84	---	2.25	2.82	2.80	2.75
12			---	---	2.16	2.31	1.82	---	2.20	2.75	2.78	2.72
13			---	---	2.16	2.31	1.81	---	2.15	2.70	2.78	2.68
14			---	---	2.14	2.29	1.80	---	2.10	2.68	2.86	2.68
15			---	---	2.12	2.27	1.81	---	2.07	2.67	2.88	2.75
16			2.53	---	2.09	2.25	1.85	---	2.03	2.66	2.81	2.74
17			2.50	2.42	2.07	2.24	2.03	---	1.99	2.66	2.81	2.75
18			2.50	2.41	2.05	2.22	1.99	---	1.95	2.75	2.83	2.95
19			2.49	2.40	2.03	2.20	1.95	---	1.93	2.78	2.87	3.01
20			2.49	2.39	2.05	2.20	1.92	---	1.93	2.78	3.28	2.91
21			2.48	2.39	2.03	2.18	1.95	---	1.93	2.77	3.08	2.86
22			2.48	2.52	2.10	2.15	1.94	1.98	2.10	2.75	2.96	2.89
23			2.53	2.52	2.12	2.15	1.97	1.94	2.19	2.73	2.87	2.89
24			2.60	2.49	2.40	2.14	2.10	1.92	2.44	2.72	2.85	2.90
25			2.58	2.49	3.06	2.11	2.40	1.92	2.53	2.74	2.78	2.89
26			2.58	2.48	3.11	2.09	2.40	1.92	2.84	2.68	2.80	2.89
27			2.58	2.45	3.15	2.06	2.40	1.90	3.13	2.64	2.84	2.90
28			2.55	2.44	3.20	2.03	2.40	1.89	3.36	2.58	2.82	2.89
29			2.54	2.45	---	2.01	---	1.87	3.38	2.54	2.85	2.88
30			2.54	2.43	---	1.97	---	1.87	3.25	2.56	2.82	2.89
31			2.54	2.39	---	2.01	---	1.85	---	2.69	2.82	---
MEAN			---	---	2.33	2.26	---	---	2.28	2.83	2.79	2.83
MAX			---	---	3.20	2.89	---	---	3.38	3.39	3.28	3.01
MIN			---	---	2.03	1.97	---	---	1.68	2.54	2.49	2.68

02287400 MIAMI CANAL AT BROKEN DAM, NEAR MIAMI, FL

LOCATION.--Lat 25°56'00", long 80°25'50", in SW¼ sec.10, T.52 S., R.39 E., 15 ft from left bank, 0.5 mi downstream from levee 30, 13.6 mi upstream from salinity-control structure, 19 mi northwest of Miami, Dade County and 19.3 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1959 to September 1967, October 1984 to November 1989. Discontinued.

GAGE.--Water-stage recorder and electromagnetic velocity meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929. November 1959 to September 1967, dual water-stage and deflection vane recorder.

REMARKS.--Estimated stage and discharge: Oct. 19, Nov. 1, 8. Records poor. Flow affected by regulation at downstream salinity-control structure 26 and by upstream storage release at control structure 32.

COOPERATION.--Records of control structure 32 operation are provided by South Florida Water Management District.

AVERAGE DISCHARGE.--8 years (Water years 1960-67, 1987), 241 ft^3/s, 174,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, indeterminate, maximum gage height, 6.21 ft July 30, 1966; minimum daily discharge, 27 ft^3/s Feb. 21-23, Apr. 29, 1987; minimum gage height, 1.40 ft May 31, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 96 ft^3/s Oct. 14, 18; maximum gage height, 3.20 ft Oct. 1; minimum daily discharge, 83 ft^3/s Oct. 11; minimum gage height, 2.60 ft Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	94										
2	93	93										
3	93	93										
4	90	87										
5	84	89										
6	87	87										
7	85	86										
8	84	89										
9	86	---										
10	84	---										
11	83	---										
12	88	---										
13	93	---										
14	96	---										
15	95	---										
16	94	---										
17	92	---										
18	96	---										
19	93	---										
20	---	---										
21	---	---										
22	---	---										
23	---	---										
24	---	---										
25	---	---										
26	---	---										
27	---	---										
28	---	---										
29	---	---										
30	---	---										
31	---	---										
TOTAL	---	---										
MEAN	---	---										
MAX	---	---										
MIN	---	---										
AC-FT	---	---										

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02287400 MIAMI CANAL AT BROKEN DAM, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.12	2.74										
2	3.13	2.73										
3	3.09	2.82										
4	3.06	2.83										
5	3.11	2.85										
6	3.09	2.86										
7	3.08	2.82										
8	3.09	2.82										
9	3.09	---										
10	3.07	---										
11	3.06	---										
12	3.04	---										
13	3.03	---										
14	3.03	---										
15	3.02	---										
16	3.02	---										
17	2.99	---										
18	2.91	---										
19	2.92	---										
20	---	---										
21	---	---										
22	---	---										
23	---	---										
24	---	---										
25	---	---										
26	---	---										
27	---	---										
28	---	---										
29	---	---										
30	---	---										
31	---	---										
TOTAL	---	---										
MEAN	---	---										
MAX	---	---										
MIN	---	---										

02288600 MIAMI CANAL AT N W 36TH STREET, MIAMI, FL
(National stream-quality accounting network station)

LOCATION --Lat 25°48'29", long 80°15'49", in NE¼ sec 29, T 53 S, R 41 E, Dade County, Hydrologic Unit 03090202, on right bank at downstream end of N W 36th Street Bridge fender at Miami, 200 ft upstream from salinity control structure S-26

DRAINAGE AREA --Indeterminate

WATER DISCHARGE RECORDS

PERIOD OF RECORD --February 1959 to current year

GAGE --Water stage recorder and electromagnetic velocity meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929. (Dade County bench mark)

REMARKS --No estimated daily discharge. Records fair. Flow affected by tide and is occasionally reversed. Some seepage losses above station into Miami-Dade Water and Sewer Authority well field for ground water withdrawals. Natural flow materially affected by levee and control structures S-31, S-2 and S-2A about 14 mi upstream, and structure S-26 downstream. Discharge computed from continuous velocity record obtained from recording electromagnetic velocity meter.

COOPERATION --Gate opening record provided by South Florida Water Management District.

AVERAGE DISCHARGE --28 years (1959-87), 251 ft^3/s, 181,900 acre-ft/yr

EXTREMES FOR PERIOD OF RECORD --Maximum discharge, 1,910 ft^3/s, Oct. 4, 1979, maximum gage height, 5.14 ft, Sept. 8, 1960, maximum reverse flow, 1,400 ft^3/s, estimated, Sept. 9, 1947, from hurricane tide, minimum gage height, -0.55 ft, Apr. 26, 1971.

EXTREMES FOR CURRENT YEAR --Maximum daily discharge, 417 ft^3/s, July 22, maximum gage height, 3.44 ft, Aug. 20, no flow for many days during year, minimum gage height, 1.37 ft, Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	.00	.00	.00	.00	.00	.00	.00	.00	426	13	64
2	175	.00	1.9	.00	.00	.00	.00	.00	.00	430	6.4	---
3	139	.42	.00	.00	.00	.00	.00	.00	.00	428	6.0	---
4	105	.61	.00	.00	.00	.00	.00	.00	.00	403	7.8	---
5	161	.45	.00	.00	.00	.00	.00	.00	.00	349	7.5	.00
6	162	.24	.00	.00	.00	.00	.00	.00	.00	233	7.3	.00
7	147	.31	.00	.00	.00	.00	.00	.00	.00	167	15	.00
8	131	.00	.00	.00	.00	.00	.00	.00	.00	101	33	---
9	87	.00	.00	.00	.00	.00	.00	.00	.00	100	29	.00
10	79	.00	.00	.00	2.9	.00	.00	.00	.00	65	71	.00
11	45	.00	.00	.00	.00	.00	.00	.00	.00	.00	31	.00
12	45	.00	.00	.00	3.2	.00	.00	.00	.00	.00	91	.00
13	42	.00	.00	.00	.00	.00	.00	.00	.00	.00	165	.00
14	29	.00	.00	.00	.00	.00	.00	.00	.00	.00	138	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	329	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	175	.00
17	18	.00	.00	.00	.00	.00	.00	.00	.00	81	123	---
18	48	.00	.00	.00	.00	.00	.00	.00	.00	105	176	---
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	299	---
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	185	---
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	417	---
22	18	1.1	.00	.00	.00	.00	.00	.00	.00	.00	215	---
23	22	.10	.00	.00	.00	.00	.00	.00	.00	.00	198	---
24	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	152	---
25	3.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	137	---
26	.00	.00	.00	.00	2.8	.00	.00	.00	48	.00	61	---
27	.00	.00	.00	.00	4.5	.00	.00	.00	186	.00	27	---
28	.00	.00	.10	.00	.00	.00	.00	.00	276	.00	20	.00
29	.00	2.1	.00	.00	---	.00	.00	.00	314	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	344	.00	74	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	84	---
TOTAL	1634.60	208.30	---	50	16.00	.00	.00	.00	1168.00	2844.00	3296.00	---
MEAN	52.7	6.94	---	.016	.57	.000	.000	.000	38.9	91.7	106	---
MAX	181	63	---	.40	4.5	.00	.00	.00	344	430	417	---
MIN	.00	.00	---	.00	.00	.00	.00	.00	.00	00	.00	---
AC-FT	3240	413	---	1.0	32	.00	.00	.00	2320	5640	6540	---

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02288600 MIAMI CANAL AT N W 36TH STREET, MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.61	2.71	2.53	2.41	2.27	2.62	2.11	2.28	1.79	2.59	2.77	2.82
2	2.60	2.69	2.51	2.42	2.25	2.38	2.07	2.10	1.74	2.56	2.66	2.82
3	2.61	2.72	2.49	2.40	2.24	2.44	2.02	1.89	1.71	2.58	2.61	2.84
4	2.64	2.74	2.50	2.38	2.23	2.38	1.94	2.01	1.68	2.56	2.62	2.79
5	2.60	2.74	2.48	2.35	2.22	2.33	2.00	2.15	1.65	2.57	2.57	2.44
6	2.60	2.80	2.46	2.34	2.20	2.33	2.01	2.16	1.78	2.66	2.53	2.41
7	2.62	2.72	2.46	2.34	2.18	2.34	1.99	2.21	2.55	2.68	2.64	2.40
8	2.65	2.78	2.46	2.34	2.17	2.36	1.95	2.17	2.41	2.74	2.61	2.74
9	2.72	2.75	2.46	2.33	2.16	2.35	1.92	2.11	2.31	2.74	2.74	2.94
10	2.72	2.70	2.47	2.35	2.19	2.34	1.96	2.04	2.24	2.66	2.72	2.92
11	2.76	2.70	2.46	2.36	2.11	2.31	1.87	1.9	1.93	2.63	2.63	2.78
12	2.74	2.69	2.47	2.33	2.10	2.26	1.83	1.9	1.93	2.74	2.71	2.74
13	2.74	2.70	2.47	2.33	2.07	2.27	1.81	1.89	2.1	2.71	2.72	2.73
14	2.75	2.68	2.44	2.31	2.04	2.24	1.78	1.87	2.1	2.75	2.74	2.73
15	2.82	2.68	2.43	2.32	2.01	2.22	1.9	1.9	1.9	2.72	2.68	2.71
16	2.82	2.67	2.43	2.32	2.00	2.21	1.88	1.9	1.9	2.7	2.65	2.7
17	2.76	2.68	2.44	2.30	1.98	2.19	2.02	1.94	1.94	2.69	2.67	2.74
18	2.63	2.65	2.41	2.26	1.96	2.19	1.98	1.9	1.9	2.74	2.74	2.74
19	2.76	2.63	2.37	2.26	1.94	2.16	1.9	1.9	1.9	2.73	2.74	2.73
20	2.79	2.63	2.35	2.25	1.96	2.17	1.94	1.9	1.93	2.74	2.74	2.7
21	2.79	2.63	2.35	2.27	1.95	2.21	1.97	1.9	1.93	2.74	2.74	2.72
22	2.77	2.58	2.36	2.28	2.05	2.21	1.95	1.92	1.9	2.74	2.74	2.7
23	2.69	2.62	2.40	2.29	2.05	2.23	1.98	1.93	1.9	2.74	2.74	2.7
24	2.76	2.62	2.47	2.35	2.07	2.22	2.01	1.93	1.9	2.74	2.74	2.7
25	2.77	2.58	2.46	2.33	2.09	2.27	2.03	1.91	1.9	2.73	2.74	2.7
26	2.78	2.56	2.45	2.30	2.03	2.16	2.04	1.9	1.9	2.7	2.74	2.69
27	2.75	2.56	2.42	2.31	2.03	2.23	2.04	1.95	1.94	2.67	2.74	2.7
28	2.75	2.57	2.41	2.30	2.08	2.22	2.03	1.93	1.93	2.67	2.71	2.7
29	2.74	2.54	2.42	2.29	---	2.25	2.02	1.97	1.93	2.64	2.73	2.7
30	2.73	2.53	2.40	2.28	---	2.24	2.05	1.94	1.9	2.7	2.73	2.68
31	2.72	---	2.40	2.27	---	2.21	---	1.92	---	2.64	2.73	---
MEAN	2.72	2.66	2.44	2.33	2.12	2.23	1.99	1.99	1.93	2.70	2.70	2.74
MAX	2.82	2.80	2.53	2.42	2.28	2.62	2.11	2.28	2.55	2.88	2.84	2.94
MIN	2.60	2.53	2.35	2.25	1.95	1.94	1.78	1.92	1.68	2.56	2.53	2.68

CAL YR 1988 MEAN 2.52 MAX 2.82 MIN 1.37
WTR YR 1989 MEAN 2.41 MAX 2.88 MIN 1.65

02286600 MIAMI CANAL AT N.W. 36TH STREET, MIAMI, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1936 to current year.

REMARKS.--Samples collected periodically since late for specific conductance and fluorides. Sites also sampled as part of QW investigations. Station has been operated since 19?? as part of National Stream Quality Accounting Network.

WATER QUALITY DATA, WATER YEAR OCTOBER 1??? TO SEPTEMBER 1???

DATE	TIME	TEMPERATURE WATER DEG C (00010)	BAROMETRIC PRESSURE MM OF HG (00025)	AGENCY ANALYZING SAMPLE CODE NUMBER (00028)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT OF SATURATION) (00301)	PH (STAND ARD UNITS) (00400)	PH, LAB (STAND ARD UNITS) (00403)	ALKALINITY WAT WH FIELD MG/L AS CACO3 (00410)	CARBONATE WATER FIELD MG/L AS CO3 (00452)
OCT											
2	????	??	??	?	?	?	??	?	?	?	?
APR											
27	??	?	??	?	?	?	?	?	?	?	?
JUN											
27	??	?	??	?	?	?	??	?	?	?	?
AUG											
2?	????	?	??	?	?	?	??	?	?	?	?

DATE	TIME	BIOCHEMICAL OXYGEN DEMAND, WATER WHOLE TOTAL 5 DAYS MG/L (00310)	NITRITE WATER FIELD MG/L AS NO2 (00613)	NITRITE PLUS NITRATE WATER FIELD MG/L AS N (00631)	NITRITE PLUS NITRATE WATER FIELD MG/L AS NO3 (00630)	NITROGEN, AMMONIA WATER FIELD MG/L AS N (00608)	NITROGEN, AMMONIA + ORGANIC WATER FIELD MG/L AS N (00625)	NITROGEN, ORGANIC WATER FIELD MG/L AS N (00605)	PHOSPHORUS WATER FIELD MG/L AS P (00666)	PHOSPHORUS, ORTHO, WATER FIELD MG/L AS P (00671)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	BARIUM, DISSOLVED (UG/L AS BA) (01005)
OCT												
2	???	? ??	? ??	?	?	?	? ?	? ??	??	??	?	?
APR												
27	??	?	?	?	?	?	?	?	?	?	?	?
JUN												
27	???	? ??	? ??	?	?	?	? ?	? ??	??	??	?	?
AUG												
2?	???	? ??	? ??	?	?	?	? ?	? ??	??	??	?	?

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE, DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	ARSENIC, DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM, DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)
OCT												
2	??	? ?	?	??	?	??	?	?	<	?	<	<?
APR												
27	?	?	??	?	?	?	?	?	<	?	?	<?
JUN												
27	?	?	?	?	?	?	?	??	<	?	?	<?
AUG												
2?	??	?	??	??								

02288600 MIAMI CANAL AT N.W. 36TH STREET, MIAMI, FL--Continued

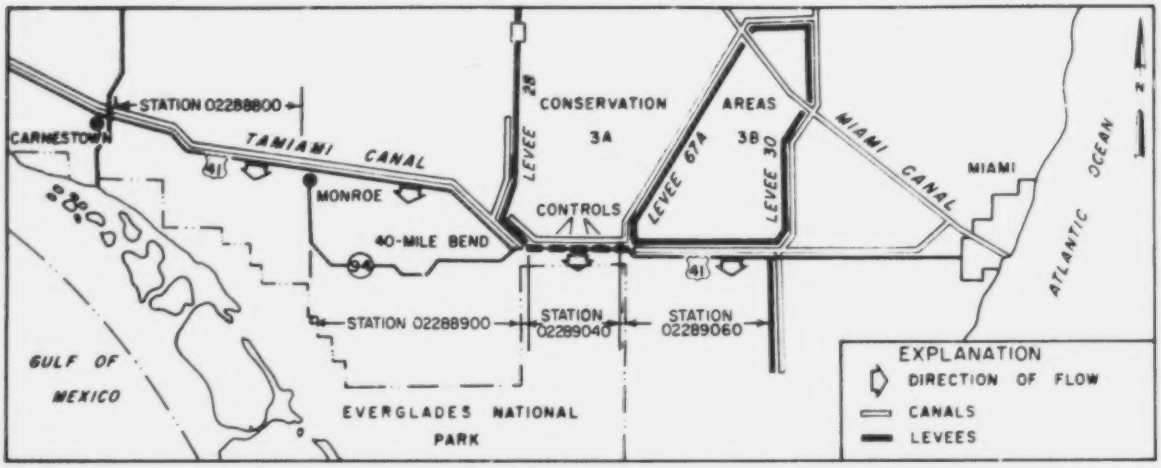
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

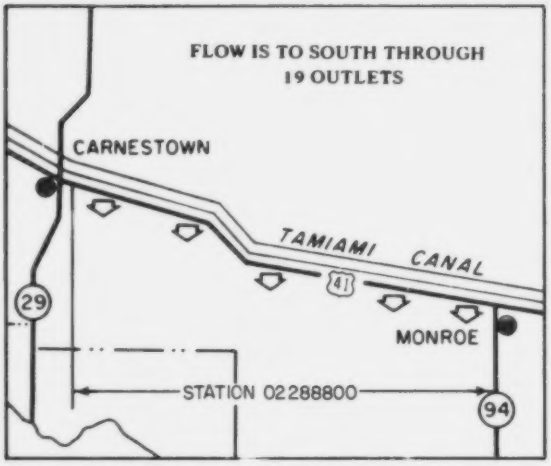
DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)
DEC												
20	1	40	<5	1	<10	<1	1.0	880	<6	9	20	4
APR												
12	4	140	10	6	<10	2	<1.0	950	<6	18	80	<4
JUN												
29	8	130	4	11	<10	8	<1.0	770	<6	12	20	5
AUG												
29	4	69	<1	7	<10	2	<1.0	870	<6	16	<10	<4

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	COLI-FORM, FECAL, 0.7 UM-MF (COLS. PER 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ALKA-LINITY WAT DIS TOT FIX FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE WATER DISS UNCOR-RECTED (MG/L) (98590)
DEC											
20	<1	120	30	275	462	25	<0.1	5	759	253	--
APR											
12	<1	180	80	226	418	85	0.3	13	680	211	--
JUN											
29	<1	940	700	187	369	7	0.1	3	607	189	--
AUG											
29	<1	130	20	238	441	50	0.3	2	670	224	<1.0

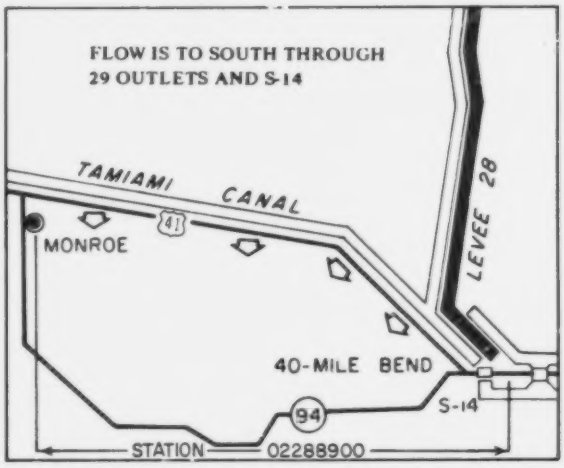
TAMIAMI CANAL OUTLETS



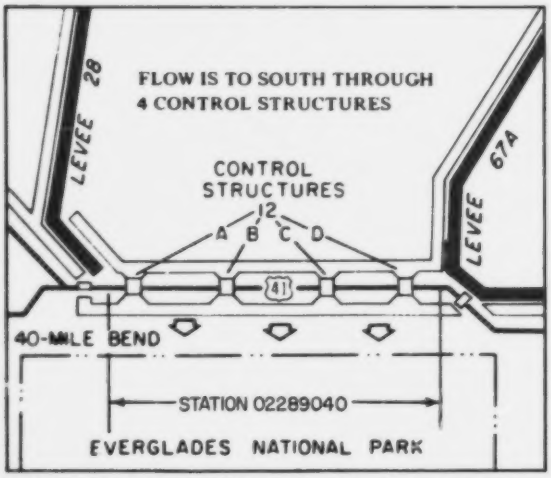
LOCATION



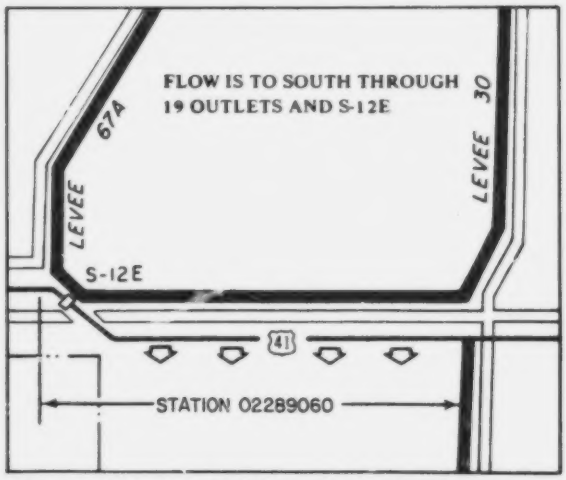
STATION 02286800 MONROE TO CARNESTOWN



STATION 02288900 40-MILE BEND TO MONROE



STATION 02289040 LEVEE 67-A TO 40-MILE BEND



STATION 02289060 LEVEE 30 TO LEVEE 67-A

FIGURE 8 · Tamiami Canal Outlets.

02288800 TAMIAMI CANAL OUTLETS, MONROE TO CARNESTOWN, FL

LOCATION.--Lat 25°53'10", long 81°15'30", in NW¼ sec.6, T.53 S., R.31 E., Collier County, Hydrologic Unit 03090204, on downstream side of bridge 84 on U.S. Highway 41, 7 mi east of Carnestown, and 10 mi west of Monroe.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 2, 1963, at site 2 mi east at datum 0.93 ft lower. May 2, 1963, to Feb. 10, 1965, at site on west bank of unnamed lateral 30 ft downstream.

REMARKS.--Estimated daily stage and discharge: Sept. 10-15. Records fair, except those for estimated daily discharges, which are poor. Figures of discharge consist of runoff from Big Cypress Watershed as represented by flow through all the outlets of the Tamiami Canal from Monroe, 55 mi west of Miami, to a point 1 mi east of the intersection with State Highway 29 at Carnestown. Flow at westernmost outlets slightly affected by tide.

AVERAGE DISCHARGE.--29 years, 382 ft^3/s, 276,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,010 ft^3/s Sept. 13, 1960; maximum gage height, 5.90 ft present datum Sept. 14, 1960; no flow for many days in some years; minimum gage height observed, -0.43 ft present datum May 30, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,660 ft^3/s Aug. 25; maximum gage height, 4.89 ft Aug. 24, 25; no flow for many days; minimum gage height, 0.40 ft June 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	592	26	119	43	.00	1.2	.00	20	.00	1230	741	1600
2	591	29	111	27	.00	.06	.00	54	.00	1220	630	1860
3	578	28	103	13	.00	.00	.00	18	.00	1090	524	1990
4	581	38	100	5.2	.00	.00	.00	27	.00	983	478	2090
5	578	37	95	.74	.00	.00	.00	1.3	.00	793	393	1940
6	570	31	94	.00	.00	.00	.00	.00	.00	650	277	1840
7	560	25	87	.00	.00	.00	.00	.00	.00	709	180	1680
8	547	19	89	.00	.00	.00	.00	.00	.00	664	112	1520
9	535	15	86	.00	.00	.00	.00	.00	.00	579	152	1350
10	524	12	70	.00	.00	.00	.00	.00	.00	505	216	1330
11	514	8.9	59	.00	.00	.00	.00	.00	.00	512	195	1310
12	501	6.5	60	.00	.00	.00	.00	.00	.00	430	178	1290
13	487	4.6	59	.00	.00	.00	.00	.00	.00	494	336	1300
14	480	3.0	53	.00	.00	.00	.00	.00	.00	487	703	1310
15	408	2.1	47	.00	.00	.00	.00	.00	1.6	425	970	1330
16	360	1.5	41	.00	.00	.00	.00	.00	3.8	364	1170	1230
17	316	1.2	35	.00	.00	.00	.00	.00	.39	333	1240	1330
18	278	.90	27	.00	.00	.00	.00	.00	.00	378	1390	1430
19	242	.53	20	.00	.00	.00	.00	.00	11	660	1490	1540
20	209	.16	16	.00	.00	.00	.00	.00	142	720	1450	1390
21	179	.00	16	.00	.00	.00	.00	.00	120	785	1480	1240
22	150	.36	40	.00	.00	.00	.00	.00	136	1010	1740	1170
23	125	23	35	.00	.00	.00	.00	.00	71	958	2080	1750
24	102	29	34	.00	.00	.00	.00	.00	188	843	2610	1970
25	83	26	31	.00	.00	.00	.00	.00	549	759	2660	1850
26	68	23	28	.00	.00	.00	.00	.00	529	667	2480	1670
27	54	24	28	.00	.00	.00	.00	.00	589	576	2250	1520
28	43	98	30	.00	.00	.00	.00	.00	821	575	2020	1330
29	33	127	31	.00	---	.00	.00	.00	1120	776	1880	1160
30	25	121	28	.00	---	.00	.35	.00	911	923	1710	1020
31	19	---	25	.00	---	.00	---	.00	---	849	1570	---
TOTAL	10332	760.75	1697	88.94	.00	1.26	.35	120.30	5192.79	21947	35305	45340
MEAN	333	25.4	54.7	2.87	.000	.041	.012	3.88	173	708	1136	1511
MAX	592	127	119	43	.00	1.2	.35	54	1120	1230	2660	2090
MIN	19	.00	16	.00	.00	.00	.00	.00	.00	333	112	1020
AC-FT	20490	1510	3370	176	.00	2.5	.7	239	10300	43530	70030	89930

CAL YR 1988 TOTAL 123990.12 MEAN 339 MAX 1940 MIN .00 AC-FT 245900
WTR YR 1989 TOTAL 120785.39 MEAN 331 MAX 2660 MIN .00 AC-FT 239600

02288800 TAMIAMI CANAL OUTLETS, MONROE TO CARNESTOWN, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.93	3.07	3.03	3.27	2.58	1.61	1.71	1.28	.55	3.59	4.21	4.54
2	3.93	3.12	2.99	3.23	2.52	1.43	1.63	1.44	.46	3.75	4.15	4.63
3	3.91	3.11	2.96	3.17	2.47	1.40	1.54	1.45	.50	3.84	4.08	4.68
4	3.90	3.21	2.94	3.11	2.43	1.38	1.50	1.62	.80	3.94	4.05	4.71
5	3.88	3.24	2.92	3.04	2.39	1.44	1.44	1.54	.82	3.99	3.98	4.66
6	3.85	3.22	2.92	2.98	2.37	1.40	1.38	1.43	.81	4.05	3.88	4.62
7	3.82	3.19	2.98	2.93	2.39	1.72	1.30	1.31	.80	4.11	3.78	4.57
8	3.78	3.15	3.14	2.88	2.32	2.43	1.22	1.18	.76	4.09	3.68	4.51
9	3.75	3.12	3.29	2.83	2.26	2.46	1.16	1.07	.69	4.04	3.69	4.44
10	3.71	3.09	3.36	2.80	2.21	2.43	1.11	1.00	.62	3.99	3.75	4.38
11	3.68	3.06	3.37	2.80	2.16	2.37	1.05	.93	.57	4.00	3.73	4.30
12	3.64	3.03	3.38	2.76	2.11	2.27	.99	.85	.58	3.94	3.70	4.23
13	3.61	2.99	3.37	2.71	2.06	2.18	.92	.77	.57	3.99	3.80	4.28
14	3.57	2.95	3.33	2.67	2.03	2.11	.89	.70	.51	3.99	4.01	4.32
15	3.54	2.93	3.28	2.63	1.98	2.04	.97	.66	.64	3.95	4.09	4.37
16	3.50	2.91	3.23	2.59	1.93	2.06	.99	.61	.71	3.90	4.13	4.39
17	3.47	2.88	3.17	2.55	1.87	2.56	.95	.55	.64	3.87	4.18	4.43
18	3.44	2.85	3.08	2.51	1.82	2.69	1.05	.51	.56	3.92	4.27	4.47
19	3.41	2.81	2.99	2.48	1.77	2.61	1.74	.55	.59	4.12	4.34	4.51
20	3.38	2.78	2.93	2.45	1.73	2.49	2.22	.51	1.20	4.15	4.35	4.45
21	3.34	2.76	2.92	2.45	1.69	2.39	2.09	.54	1.31	4.20	4.39	4.39
22	3.30	2.78	3.34	2.90	1.66	2.30	1.95	1.53	1.49	4.31	4.52	4.36
23	3.26	2.99	3.42	3.00	1.63	2.23	1.75	1.53	1.53	4.29	4.66	4.58
24	3.21	3.00	3.41	2.96	1.57	2.17	1.55	1.41	1.83	4.24	4.85	4.66
25	3.17	2.97	3.38	2.92	1.52	2.09	1.36	1.28	2.33	4.20	4.88	4.62
26	3.13	2.93	3.35	2.87	1.46	2.01	1.21	1.16	2.47	4.15	4.83	4.56
27	3.09	2.94	3.35	2.81	1.41	1.94	1.09	1.05	2.65	4.10	4.76	4.49
28	3.05	3.04	3.37	2.76	1.39	1.89	1.01	.93	2.94	4.10	4.68	4.41
29	3.01	3.06	3.38	2.72	---	1.83	.95	.83	3.24	4.22	4.64	4.34
30	2.96	3.03	3.35	2.66	---	1.79	1.11	.73	3.29	4.30	4.58	4.28
31	2.94	---	3.31	2.62	---	1.73	---	.65	---	4.27	4.53	---
MEAN	3.49	3.01	3.20	2.81	1.99	2.05	1.33	1.02	1.22	4.05	4.23	4.47
MAX	3.93	3.24	3.42	3.27	2.58	2.69	2.22	1.62	3.29	4.31	4.88	4.71
MIN	2.94	2.76	2.92	2.45	1.39	1.38	.89	.51	.46	3.59	3.68	4.23

CAL YR 1988 MEAN 3.15 MAX 4.60 MIN .65
WTR YR 1989 MEAN 2.75 MAX 4.88 MIN .46

02288900 TAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, FL
(National stream-quality accounting network station)

LOCATION.--Lat 25°51'05", long 80°58'50", in SW¼ sec.13, T.53 S., R.33 E., Collier County, Hydrologic Unit 03090202, on south bank, 25 ft east of bridge 105 on U.S. Highway 41, and 54 mi west of Miami, Dade County.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1939 to September 1963 (monthly discharge only). October 1963 to current year. Prior to October 1963, published as Tamiami Canal at bridge 105, near Miami (auxiliary). Records of gage height prior to October 1963 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Feb. 20, 1952, nonrecording gage and Feb. 20, 1952, to May 28, 1952, water-stage recorder, at same site at datum 0.37 ft higher.

AVERAGE DISCHARGE.--48 years, 275 ft^3/s, 199,200 acre-ft/yr.

REMARKS.--Estimated stage and discharge: Nov. 23, Dec. 1. Records fair except those below 20 ft^3/s and those estimated discharges, which are poor. Figures of daily discharge consist of runoff from Big Cypress Watershed and the Everglades as represented by flow through all 29 bridges from bridge 28 to 22 and bridge 117 to 96. Prior to October 1963, daily discharge for this portion of canal was published as part of the total daily discharge of station, Tamiami Canal outlets, Miami to Monroe (station 02289000).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,800 ft^3/s July 2, 1966, from rating curve extended above 1,700 ft^3/s; maximum gage height, 10.01 ft Oct. 20, 1947 (present datum); no flow for many days in some years; minimum gage height, 2.65 ft May 26, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 919 ft^3/s Aug. 22; maximum gage height, 8.57 ft Sept. 3, 4; no flow for many days; minimum gage height, 3.65 ft June 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	561	155	44	12	5.6	.14	.00	.00	.00	3	227	688
2	755	144	41	11	4.8	.08	.00	.00	.00	3	216	770
3	738	137	38	9.9	4.3	.02	.00	.00	.00	118	213	775
4	694	134	38	9.1	4.0	.00	.00	.00	.00	225	225	759
5	669	127	35	8.0	3.6	.00	.00	.00	.00	297	212	686
6	615	121	33	7.2	3.3	.00	.00	.00	.00	296	198	629
7	573	115	32	6.5	3.0	.00	.00	.00	.00	284	184	---
8	525	108	31	5.9	2.8	.12	.00	.00	.00	271	171	---
9	484	103	29	5.3	2.5	.32	.00	.00	.00	251	165	---
10	447	97	29	5.9	2.2	.37	.00	.00	.00	233	183	---
11	412	93	27	12	2.0	.33	.00	.00	.00	221	255	---
12	380	87	27	11	1.8	.25	.00	.00	.00	217	342	461
13	350	81	26	9.4	1.6	.16	.00	.00	.00	242	532	438
14	323	76	24	8.1	1.4	.07	.00	.00	.00	234	623	409
15	313	77	23	7.3	1.2	.00	.00	.00	.00	228	601	391
16	307	74	21	6.5	1.0	.00	.00	.00	.00	233	592	---
17	301	70	19	6.3	.94	.00	.00	.00	.00	236	607	---
18	298	65	17	8.9	.89	.00	.00	.00	.00	234	675	---
19	294	60	15	8.0	.82	.00	.00	.00	.00	261	707	---
20	291	57	14	8.3	.75	.00	.00	.00	.00	261	738	---
21	285	54	13	11	.69	.00	.00	.00	.00	265	819	---
22	279	54	13	18	.62	.00	.00	.00	.00	277	919	---
23	272	66	13	19	.54	.00	.00	.00	.00	271	872	---
24	266	---	13	16	.46	.00	.00	.00	.00	267	830	661
25	261	---	12	15	.39	.00	.00	.00	.02	265	785	779
26	254	---	22	13	.32	.00	.00	.00	.14	258	748	787
27	247	---	19	11	.26	.00	.00	.00	.39	249	709	787
28	241	---	17	9.7	.20	.00	.00	.00	1.5	238	677	787
29	234	---	16	8.6	---	.00	.00	.00	5.1	233	648	774
30	225	---	14	7.4	---	.00	.00	.00	11	245	686	758
31	203	---	13	6.4	---	.00	---	.00	---	239	736	---
TOTAL	12097	---	728	301.7	51.98	1.86	.00	.00	18.15	7245	16095	---
MEAN	390	---	23.5	9.73	1.86	.060	.000	.000	.61	234	519	---
MAX	755	---	44	19	5.6	.37	.00	.00	11	297	919	---
MIN	203	---	12	5.3	.20	.00	.00	.00	.00	33	165	---
AC-FT	23990	---	1440	598	103	3.7	.00	.00	36	14370	31920	---

02288900 TAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, FL
(National stream-quality accounting network station)

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.06	7.87	7.47	6.74	6.49	5.20	4.63	6.51	3.94	7.79	8.01	8.32
2	8.08	7.85	7.44	6.72	6.44	5.17	4.58	6.42	3.89	7.87	7.99	8.43
3	8.07	7.83	7.41	6.69	6.40	5.13	4.54	6.32	3.85	7.93	7.98	8.52
4	8.07	7.83	7.39	6.66	6.35	5.10	4.50	6.22	3.83	8.05	8.01	8.54
5	8.07	7.81	7.36	6.62	6.31	5.09	4.47	6.13	3.80	8.05	7.98	8.49
6	8.06	7.80	7.33	6.58	6.27	5.07	4.46	6.17	3.79	8.03	7.96	8.45
7	8.05	7.78	7.31	6.56	6.23	5.10	4.41	6.14	3.78	8.01	7.93	---
8	8.04	7.76	7.28	6.53	6.18	5.36	4.37	6.04	3.76	7.98	7.90	---
9	8.03	7.74	7.26	6.49	6.14	5.59	4.33	5.94	3.73	7.95	7.89	---
10	8.02	7.72	7.23	6.49	6.09	5.66	4.29	5.84	3.71	7.92	7.92	---
11	8.01	7.70	7.21	6.58	6.05	5.65	4.24	5.74	3.68	7.90	8.02	---
12	8.00	7.68	7.19	6.55	6.00	5.60	4.21	5.65	3.66	7.89	8.08	8.31
13	7.99	7.66	7.17	6.50	5.96	5.53	4.27	5.55	3.86	7.93	8.23	8.28
14	7.98	7.64	7.12	6.45	5.91	5.47	4.25	5.47	4.93	7.91	8.29	8.25
15	7.97	7.65	7.10	6.42	5.87	5.40	4.28	5.45	4.90	7.90	8.27	8.23
16	7.96	7.63	7.07	6.39	5.82	5.33	4.31	5.36	4.75	7.91	8.26	---
17	7.95	7.61	7.03	6.37	5.79	5.30	4.36	5.24	4.60	7.91	8.27	---
18	7.95	7.59	6.98	6.40	5.76	5.33	4.42	5.12	4.48	7.90	8.33	---
19	7.94	7.56	6.93	6.37	5.71	5.32	4.50	5.01	4.62	7.95	8.35	---
20	7.94	7.54	6.91	6.38	5.66	5.28	5.02	4.91	5.53	7.99	8.37	---
21	7.93	7.53	6.89	6.57	5.61	5.23	6.42	4.78	6.15	8.08	8.42	---
22	7.92	7.52	6.89	6.84	5.56	5.17	6.41	4.63	6.49	8.09	8.48	---
23	7.91	7.59	6.88	6.89	5.50	5.12	6.31	4.54	6.52	8.09	8.45	---
24	7.90	---	6.88	6.84	5.43	5.06	6.21	4.45	6.62	8.08	8.42	8.40
25	7.89	---	6.87	6.79	5.38	4.99	6.10	4.37	6.67	8.08	8.39	8.45
26	7.88	---	6.97	6.75	5.33	4.94	5.98	4.29	6.65	8.06	8.37	8.45
27	7.87	---	6.92	6.70	5.29	4.90	5.86	4.22	6.76	8.05	8.34	8.45
28	7.86	---	6.88	6.66	5.24	4.85	5.75	4.16	7.17	8.03	8.32	8.45
29	7.85	---	6.84	6.62	---	4.79	5.78	4.10	7.47	8.02	8.30	8.44
30	7.83	---	6.81	6.57	---	4.73	6.42	4.05	7.54	8.04	8.32	8.43
31	7.83	---	6.77	6.53	---	4.68	---	3.99	---	8.03	8.36	---
MEAN	7.96	---	7.09	6.59	5.88	5.20	4.99	5.25	5.04	7.98	8.20	---
MAX	8.08	---	7.47	6.89	6.49	5.66	6.42	6.51	7.54	8.09	8.48	---
MIN	7.83	---	6.77	6.37	5.24	4.68	4.21	3.99	3.66	7.79	7.89	---

02288900 TAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

REMARKS.--Samples collected periodically for QW investigation beginning in 1969. Samples collected also as part of joint USGS-SFWMD network since 1975. Station became part of National Quality Accounting Network in 1978 and was also sampled monthly as part of QW network in cooperation with National Park Service.

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	TURBIDITY (NTU) (00076)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
DEC 20...	0945	14.0	770	80020	14	1.0	525	4.4	7.28	7.80	234	0
JUN 29...	1035	23.5	765	80020	5.1	0.60	575	1.2	7.68	7.60	233	0
AUG 29...	1000	27.0	763	80020	648	0.50	390	1.8	7.07	7.80	142	0
SEP 28...	0955	27.0	764	80020	787	0.30	--	2.7	7.56	7.80	131	0

DATE	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHOROUS TOTAL (MG/L AS P) (00665)	PHOSPHOROUS DISSOLVED (MG/L AS P) (00666)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
DEC 20...	288	0.80	0.120	0.100	0.021	0.90	0.150	0.021	0.010	0.010	88	4.2
JUN 29...	295	0.69	0.330	0.310	0.010	1.0	<0.100	0.090	0.040	<0.010	89	3.5
AUG 29...	168	0.67	0.040	0.030	<0.010	0.70	<0.100	0.010	0.010	<0.010	57	2.2
SEP 28...	160	0.78	0.020	0.020	<0.010	0.80	<0.100	0.020	<0.010	0.010	51	2.0

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)
DEC 20...	17	0.50	24	5.3	0.10	3.5	1	17	<0.5	<1	<1	<3
JUN 29...	13	1.6	20	5.0	0.10	4.9	1	19	<0.5	<1	<1	<3
AUG 29...	11	0.70	17	<1.0	0.10	7.6	<1	14	<0.5	<1	<1	<3
SEP 28...	8.6	0.50	8.8	<1.0	0.10	3.6	<1	13	<0.5	<1	<1	<3

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	LITHIUM DISSOLVED (UG/L AS LI) (01130)
DEC 20...	5	49	<5	6	<10	<1	1.0	430	<6	4	20	5
JUN 29...	4	51	1	23	<10	3	<1.0	380	<6	10	<10	5
AUG 29...	7	66	1	7	<10	3	<1.0	210	<6	6	<10	<4
SEP 28...	7	49	1	6	<10	4	<1.0	190	<6	6	20	<4

02288900 TAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SEDIMENT, SUSPENDED (MG/L) (80154)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE WATER DISS UNCORRECTED (MG/L) (99890)
DEC											
20...	<1	110	80	236	295	0	<0.1	2	498	227	--
JUN											
29...	<1	70	500	243	298	0	0.2	3	511	230	--
AUG											
29...	<1	70	480	138	217	100	0.4	2	323	144	<1.0
SEP											
28...	<1	60	400	131	172	0	0.1	1	285	132	<1.0

254754080344300 SHARK RIVER SLOUGH NO. 1 IN CONSERVATION AREA 3B NEAR COOPERTOWN, FL

LOCATION.--Lat 25°47'54", long 80°33'43", in SW¼ sec.30, T.53 S., R.38 E., Dade County, Hydrologic Unit 03090202, 2.8 mi northwest of Coopertown on east-west ditch in Conservation Area 3B.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1976 to September 1980, October 1982 to current year. Prior to October 1977, published as "Shark Valley Slough No. 1 in conservation area 3B near Coopertown."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.38 ft Sept. 29, 1978; minimum, 4.21 ft June 20, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.07 ft Oct. 2; minimum, 4.21 ft June 20.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.99	7.64	7.41	7.13	6.92	6.30	5.88	5.63	4.87	5.55	6.02	6.64
2	8.05	7.67	7.39	7.12	6.91	6.65	5.90	5.61	4.81	5.53	5.97	6.78
3	8.03	7.65	7.37	7.11	6.90	6.67	5.86	5.56	4.76	5.52	5.95	6.74
4	8.01	7.69	7.36	7.10	6.89	6.63	5.81	5.52	4.70	5.56	5.99	6.71
5	8.00	7.69	7.35	7.09	6.87	6.58	5.76	5.47	4.65	5.78	5.96	6.69
6	7.99	7.68	7.33	7.08	6.86	6.53	6.26	5.43	4.59	5.83	5.93	6.70
7	7.98	7.66	7.33	7.07	6.85	6.50	6.32	5.45	4.61	5.80	5.90	6.76
8	7.96	7.65	7.31	7.06	6.83	6.53	6.27	5.43	4.71	5.75	5.94	6.74
9	7.94	7.63	7.30	7.06	6.82	6.52	6.21	5.39	4.74	5.70	5.96	6.72
10	7.93	7.62	7.29	7.05	6.80	6.49	6.15	5.34	4.72	5.64	5.96	6.71
11	7.91	7.60	7.28	7.05	6.78	6.45	6.09	5.29	4.69	5.59	5.95	6.69
12	7.89	7.59	7.28	7.04	6.76	6.41	6.02	5.24	4.64	5.55	5.99	6.68
13	7.88	7.58	7.27	7.03	6.73	6.37	5.98	5.19	4.59	5.53	6.12	6.65
14	7.86	7.56	7.26	7.02	6.71	6.33	5.93	5.19	4.53	5.51	6.16	6.62
15	7.85	7.55	7.25	7.01	6.68	6.29	5.88	5.16	4.47	5.48	6.17	6.60
16	7.83	7.54	7.24	7.00	6.65	6.26	5.83	5.14	4.41	5.48	6.25	6.58
17	7.82	7.53	7.24	6.99	6.62	6.23	5.91	5.13	4.36	5.52	6.28	6.56
18	7.80	7.52	7.22	6.99	6.59	6.20	5.93	5.14	4.30	5.59	6.35	6.60
19	7.79	7.51	7.21	6.98	6.56	6.17	5.89	5.22	4.26	5.83	6.42	6.71
20	7.78	7.49	7.20	6.97	6.53	6.14	5.83	5.20	4.25	5.82	6.62	6.72
21	7.77	7.48	7.20	6.97	6.50	6.10	5.81	5.17	4.30	5.82	6.64	6.73
22	7.75	7.48	7.19	7.00	6.48	6.06	5.77	5.12	4.30	5.86	6.66	6.75
23	7.74	7.51	7.19	7.00	6.47	6.03	6.01	5.08	4.28	5.83	6.67	6.82
24	7.73	7.49	7.18	6.99	6.43	6.04	5.99	5.16	4.26	5.80	6.65	6.84
25	7.72	7.47	7.18	6.98	6.40	6.01	5.92	5.20	4.27	5.77	6.62	6.84
26	7.70	7.46	7.17	6.98	6.36	5.97	5.84	5.19	4.41	5.81	6.59	6.85
27	7.69	7.45	7.17	6.97	6.33	5.93	5.76	5.15	4.60	6.01	6.61	6.85
28	7.68	7.44	7.16	6.96	6.30	5.89	5.69	5.08	4.86	6.00	6.63	6.84
29	7.67	7.43	7.15	6.95	---	5.85	5.63	5.02	5.35	6.00	6.61	6.83
30	7.66	7.42	7.15	6.94	---	5.82	5.60	4.96	5.56	6.03	6.59	6.82
31	7.65	---	7.14	6.93	---	5.78	---	4.92	---	6.04	6.59	---
MEAN	7.84	7.56	7.25	7.02	6.66	6.25	5.92	5.25	4.60	5.73	6.28	6.73
MAX	8.05	7.69	7.41	7.13	6.92	6.67	6.32	5.63	5.56	6.04	6.67	6.85
MIN	7.65	7.42	7.14	6.93	6.30	5.78	5.60	4.92	4.25	5.48	5.90	6.56

CAL YR 1988 MEAN 7.53 MAX 8.30 MIN 6.89
WTR YR 1989 MEAN 6.42 MAX 8.05 MIN 4.25

254543080491100 TAMIAMI CANAL ABOVE S-12-A, NEAR MIAMI, FL

LOCATION.--Lat 25°45'43", long 80°49'11", in N sec.15, T.54 S., R.35 E., Dade County, Hydrologic Unit 03090202, on north bank of Levee 29 borrow ditch, 200 ft northeast of structure 12A, 38 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1980 to current year (gage heights only). Records prior to October 1980 are fragmentary or missing from the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage. Station is one of several located above the gated control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through structure 12-A.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.28 ft Feb. 16, 1983; minimum, 5.17 ft June 18, 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.67 ft Oct. 19, 20; minimum, 5.17 ft June 18, 19.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.50	9.57	9.46	8.90	8.11	7.74	7.06	7.33	5.79	7.61	7.81	8.29
2	9.53	9.57	9.44	8.88	8.08	7.82	7.03	7.44	5.70	7.66	7.80	8.33
3	9.52	9.57	9.42	8.85	7.99	7.83	6.97	7.27	5.58	7.67	7.81	8.37
4	9.51	9.57	9.41	8.83	7.87	7.94	6.93	7.25	5.54	7.69	7.85	8.40
5	9.51	9.56	9.38	8.81	7.75	7.90	6.90	7.17	5.47	7.67	7.80	8.43
6	9.51	9.56	9.37	8.78	7.66	7.85	7.08	7.18	5.41	7.70	7.75	8.45
7	9.52	9.56	9.35	8.75	7.59	7.87	6.97	7.26	5.74	7.67	7.72	8.45
8	9.51	9.56	9.34	8.73	7.52	7.93	6.95	7.27	5.88	7.63	7.73	8.46
9	9.50	9.56	9.32	8.70	7.52	7.92	6.93	7.22	5.88	7.61	7.72	8.46
10	9.49	9.55	9.31	8.68	7.52	7.91	6.86	7.04	5.85	7.57	7.74	8.47
11	9.48	9.55	9.29	8.68	7.51	7.92	6.80	6.95	5.79	7.48	7.78	8.47
12	9.53	9.55	9.27	8.67	7.51	7.83	6.84	6.60	5.69	7.42	7.84	8.47
13	9.59	9.53	9.26	8.63	7.49	7.75	6.94	6.46	5.58	7.38	7.88	8.46
14	9.62	9.53	9.24	8.59	7.48	7.75	6.90	6.40	5.51	7.43	7.88	8.46
15	9.63	9.52	9.22	8.56	7.45	7.76	6.92	6.38	5.40	7.47	7.91	8.45
16	9.64	9.52	9.21	8.51	7.42	7.74	7.19	6.79	5.34	7.47	7.94	8.47
17	9.65	9.52	9.19	8.47	7.60	7.67	7.25	6.91	5.30	7.55	7.95	8.48
18	9.65	9.52	9.17	8.43	7.65	7.61	7.38	7.00	5.26	7.62	7.97	8.50
19	9.66	9.51	9.15	8.39	7.69	7.57	7.16	6.83	5.19	7.61	8.01	8.55
20	9.66	9.50	9.14	8.34	7.70	7.49	6.84	6.65	5.40	7.66	8.07	8.57
21	9.66	9.49	9.12	8.37	7.66	7.41	7.31	6.52	5.57	7.75	8.08	8.56
22	9.66	9.49	9.10	8.43	7.63	7.36	7.49	6.38	5.73	7.79	8.10	8.57
23	9.65	9.52	9.09	8.45	7.62	7.27	7.47	6.27	5.76	7.80	8.13	8.64
24	9.63	9.52	9.07	8.45	7.54	7.26	7.37	6.19	5.73	7.78	8.15	8.67
25	9.62	9.51	9.05	8.44	7.36	7.27	7.09	6.31	5.73	7.79	8.15	8.69
26	9.63	9.50	9.03	8.42	7.26	7.25	6.98	6.17	5.84	7.78	8.16	8.73
27	9.62	9.50	9.01	8.39	7.28	7.25	7.05	6.14	6.19	7.81	8.17	8.77
28	9.61	9.49	8.99	8.34	7.37	7.21	7.02	5.97	6.47	7.81	8.21	8.78
29	9.61	9.48	8.96	8.29	---	7.15	7.05	5.88	7.04	7.80	8.23	8.79
30	9.59	9.48	8.94	8.23	---	7.06	7.18	5.91	7.32	7.80	8.24	8.78
31	9.58	---	8.92	8.15	---	7.02	---	5.86	---	7.80	8.26	---
MEAN	9.58	9.53	9.20	8.55	7.60	7.59	7.06	6.68	5.76	7.65	7.96	8.53
MAX	9.66	9.57	9.46	8.90	8.11	7.94	7.49	7.44	7.32	7.81	8.26	8.79
MIN	9.48	9.48	8.92	8.15	7.26	7.02	6.80	5.86	5.19	7.38	7.72	8.29

CAL YR 1988 MEAN 9.40 MAX 10.18 MIN 8.39
WTR YR 1989 MEAN 7.98 MAX 9.66 MIN 5.19

254543080491101 TAMIAMI CANAL BELOW S-12-A, NEAR MIAMI, FL

LOCATION.--Lat 25°45'43", long 80°49'11", in N sec.15, T.54 S., R.35 E., Dade County, Hydrologic Unit 03090202, on north bank of Levee 29 borrow canal, 200 ft northeast of control structure 12-A, and 38 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1963 to September 1965, October 1970 to September 1971, October 1975 to September 1976, October 1977 to September 1980 (discharge only), October 1980 to current year. Stage and discharge records for the missing periods above were either fragmentary or unavailable from the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily stage and discharge: June 24 - July 5. Records good except those for estimated daily stage and discharge which are fair. Station is one of several located downstream from the control stuctures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through control structure 12-A. Discharge is the total discharge through the S-12-A structure, from Conservation Area 3A. The daily discharge computed from relation between discharge, head, and gate-openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions.

COOPERATION.--Gate-opening records for S-12-A provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--16 years (water years 1964-65, 1971, 1976, 1978-89), 85.4 ft^3/s, 61,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 843 ft^3/s July 21, 1982; maximum gage height, 10.23 ft July 20-22, 1982; no flow for some days most years; minimum gage height, 5.21 ft June 19, 20, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 322 ft^3/s Oct. 6; maximum gage height, 9.52 ft Oct. 2; no flow for many days; minimum gage height, 5.21 ft June 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	97	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	297	79	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	292	79	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	302	80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	313	80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	322	80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	313	80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	317	67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	298	56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	298	56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	291	56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	224	56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	170	56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	177	56	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	179	49	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	181	39	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	182	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	178	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	175	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	176	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	176	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	176	35	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	175	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	173	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	149	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	122	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.1
27	122	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	11
28	122	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	11
29	122	19	.00	.00	---	.00	.00	.00	.00	.00	.00	11
30	122	3.3	.00	.00	---	.00	.00	.00	.00	.00	.00	11
31	121	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	6552	1503.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	49.10
MEAN	211	50.1	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.64
MAX	322	97	.00	.00	.00	.00	.00	.00	.00	.00	.00	11
MIN	121	3.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	13000	2980	.00	.00	.00	.00	.00	.00	.00	.00	.00	97

CAL YR 1988 TOTAL 35287.20 MEAN 96.4 MAX 633 MIN .00 AC-FT 69990
WTR YR 1989 TOTAL 8104.40 MEAN 22.2 MAX 322 MIN .00 AC-FT 16080

254543080491101 TAMIAMI CANAL BELOW S-12-A, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.48	8.85	8.22	7.87	7.60	7.14	6.70	6.95	5.72	7.38	7.57	7.73
2	9.52	8.78	8.19	7.86	7.58	7.19	6.67	6.94	5.65	7.45	7.54	7.75
3	9.50	8.77	8.18	7.85	7.55	7.21	6.65	6.91	5.58	7.47	7.55	7.78
4	9.47	8.77	8.16	7.85	7.53	7.22	6.62	6.86	5.53	7.48	7.60	7.84
5	9.45	8.76	8.15	7.84	7.50	7.22	6.59	6.89	5.49	7.52	7.57	7.83
6	9.45	8.76	8.14	7.83	7.47	7.21	6.59	7.10	5.45	7.34	7.53	7.80
7	9.46	8.75	8.13	7.82	7.44	7.25	6.58	7.14	5.52	7.32	7.50	7.76
8	9.45	8.71	8.12	7.81	7.42	7.32	6.55	7.09	5.63	7.28	7.50	7.74
9	9.45	8.67	8.11	7.80	7.40	7.31	6.53	7.03	5.66	7.25	7.56	7.73
10	9.44	8.66	8.10	7.83	7.37	7.30	6.49	7.00	5.64	7.22	7.59	7.71
11	9.43	8.66	8.09	7.85	7.35	7.27	6.47	6.95	5.60	7.22	7.59	7.70
12	9.33	8.65	8.09	7.83	7.33	7.25	6.78	6.81	5.56	7.26	7.60	7.69
13	9.17	8.65	8.08	7.81	7.32	7.22	7.04	6.64	5.52	7.24	7.74	7.70
14	9.16	8.64	8.06	7.80	7.30	7.19	6.99	6.53	5.47	7.29	7.76	7.73
15	9.16	8.61	8.04	7.78	7.29	7.17	6.95	6.45	5.41	7.28	7.72	7.76
16	9.16	8.55	8.02	7.76	7.27	7.16	6.98	6.52	5.36	7.26	7.65	7.80
17	9.16	8.54	8.00	7.74	7.27	7.14	7.01	6.59	5.32	7.25	7.58	7.83
18	9.14	8.53	7.99	7.73	7.29	7.12	7.01	6.61	5.28	7.29	7.61	7.83
19	9.12	8.52	7.98	7.71	7.29	7.09	7.00	6.59	5.22	7.52	7.64	7.88
20	9.11	8.51	7.98	7.70	7.29	7.06	6.91	6.50	5.39	7.57	7.66	7.91
21	9.11	8.51	7.97	7.71	7.28	7.03	6.93	6.41	5.62	7.77	7.67	7.92
22	9.11	8.49	7.96	7.79	7.26	6.99	6.99	6.32	5.81	7.70	7.67	7.93
23	9.10	8.48	7.95	7.78	7.24	6.96	7.00	6.25	5.96	7.65	7.67	7.98
24	9.10	8.46	7.94	7.75	7.21	6.93	6.97	6.18	5.75	7.61	7.65	7.98
25	9.03	8.46	7.94	7.74	7.18	6.90	6.91	6.16	5.78	7.60	7.63	7.97
26	8.95	8.45	7.92	7.72	7.15	6.87	6.83	6.10	5.84	7.60	7.62	8.08
27	8.93	8.44	7.91	7.70	7.12	6.85	6.77	6.02	6.11	7.62	7.64	8.23
28	8.93	8.44	7.90	7.68	7.11	6.83	6.74	5.99	6.60	7.59	7.75	8.23
29	8.92	8.39	7.89	7.67	---	6.80	6.79	5.87	7.15	7.62	7.73	8.24
30	8.92	8.25	7.89	7.64	---	6.76	6.86	5.84	7.25	7.63	7.74	8.24
31	8.91	---	7.88	7.62	---	6.73	---	5.79	---	7.60	7.79	---
MEAN	9.21	8.59	8.03	7.77	7.34	7.09	6.80	6.55	5.73	7.45	7.63	7.88
MAX	9.52	8.85	8.22	7.87	7.60	7.32	7.04	7.14	7.25	7.77	7.79	8.24
MIN	8.91	8.25	7.88	7.62	7.11	6.73	6.47	5.79	5.22	7.22	7.50	7.69

CAL YR 1988 MEAN 8.56 MAX 9.66 MIN 7.60
WTR YR 1989 MEAN 7.51 MAX 9.52 MIN 5.22

02289018 TAMIAMI CANAL ABOVE S-12-B, NEAR MIAMI, FL

LOCATION.--Lat 25°45'42", long 80°46'05", in N½ sec.19, T.54 S., R.36 E., Dade County, Hydrologic Unit 03090202, on south bank of levee 29 borrow ditch, 100 ft northwest of control structure 12-B, west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1963 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage. Station is one of several located above the gated control structures in levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through structure 12-B.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.55 ft Oct. 26, 1968; minimum, 5.14 ft June 18, 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.67 ft Oct. 16-19; minimum, 5.14 ft June 18, 19.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.54	9.53	9.40	8.80	8.01	7.77	7.05	7.33	5.76	7.60	7.81	8.29
2	9.56	9.55	9.39	8.78	7.98	7.80	7.01	7.44	5.68	7.64	7.79	8.32
3	9.53	9.55	9.36	8.75	7.88	7.83	6.95	7.25	5.57	7.66	7.80	8.36
4	9.52	9.55	9.34	8.73	7.75	7.94	6.90	7.23	5.52	7.67	7.84	8.39
5	9.55	9.54	9.31	8.70	7.64	7.88	6.89	7.15	5.44	7.66	7.79	8.43
6	9.56	9.53	9.29	8.66	7.56	7.83	7.08	7.17	5.40	7.69	7.74	8.44
7	9.58	9.53	9.28	8.64	7.49	7.87	6.95	7.26	5.73	7.66	7.71	8.45
8	9.57	9.52	9.27	8.62	7.44	7.92	6.94	7.26	5.87	7.62	7.73	8.45
9	9.56	9.52	9.24	8.58	7.46	7.91	6.92	7.21	5.86	7.60	7.72	8.46
10	9.55	9.52	9.23	8.56	7.46	7.91	6.84	7.04	5.82	7.56	7.73	8.46
11	9.54	9.51	9.20	8.56	7.45	7.90	6.79	6.95	5.76	7.48	7.77	8.46
12	9.57	9.51	9.18	8.53	7.46	7.80	6.80	6.58	5.67	7.41	7.83	8.46
13	9.62	9.49	9.18	8.49	7.44	7.73	6.93	6.46	5.57	7.37	7.87	8.45
14	9.65	9.49	9.16	8.46	7.43	7.74	6.89	6.39	5.49	7.43	7.88	8.45
15	9.65	9.48	9.14	8.41	7.40	7.74	6.94	6.38	5.38	7.47	7.90	8.45
16	9.66	9.49	9.12	8.36	7.38	7.72	7.20	6.80	5.32	7.46	7.93	8.46
17	9.67	9.49	9.11	8.32	7.58	7.65	7.26	6.91	5.27	7.55	7.93	8.47
18	9.66	9.48	9.10	8.28	7.63	7.59	7.39	7.00	5.23	7.61	7.96	8.50
19	9.65	9.47	9.08	8.24	7.67	7.54	7.15	6.81	5.18	7.60	8.00	8.55
20	9.64	9.46	9.05	8.18	7.67	7.47	6.84	6.63	5.39	7.64	8.06	8.56
21	9.64	9.45	9.03	8.29	7.63	7.40	7.35	6.51	5.56	7.73	8.08	8.56
22	9.63	9.45	9.01	8.31	7.61	7.34	7.49	6.37	5.71	7.78	8.12	8.56
23	9.61	9.46	8.99	8.34	7.61	7.25	7.48	6.27	5.74	7.77	8.15	8.64
24	9.60	9.47	8.97	8.34	7.51	7.25	7.37	6.17	5.72	7.76	8.17	8.66
25	9.59	9.47	8.95	8.34	7.33	7.26	7.09	6.30	5.72	7.77	8.17	8.69
26	9.60	9.46	8.94	8.31	7.23	7.24	6.99	6.16	5.83	7.76	8.17	8.73
27	9.59	9.45	8.93	8.28	7.28	7.24	7.05	6.13	6.17	7.79	8.19	8.77
28	9.57	9.44	8.90	8.22	7.37	7.18	7.02	5.95	6.46	7.80	8.23	8.78
29	9.56	9.44	8.87	8.17	---	7.13	7.07	5.86	7.04	7.79	8.25	8.77
30	9.55	9.42	8.85	8.10	---	7.04	7.19	5.89	7.31	7.79	8.25	8.77
31	9.53	---	8.83	8.03	---	7.01	---	5.83	---	7.79	8.27	---
MEAN	9.59	9.49	9.12	8.43	7.55	7.58	7.06	6.67	5.74	7.64	7.96	8.53
MAX	9.67	9.55	9.40	8.80	8.01	7.94	7.49	7.44	7.31	7.80	8.27	8.78
MIN	9.52	9.42	8.83	8.03	7.23	7.01	6.79	5.83	5.18	7.37	7.71	8.29

CAL YR 1988 MEAN 9.37 MAX 10.14 MIN 8.40
WTR YR 1989 MEAN 7.95 MAX 9.67 MIN 5.18

02289019 TAMIAMI CANAL BELOW S-12-B, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°46'05", in N½ sec.19, T.54 S., R.36 E., Dade County, Hydrologic Unit 03090202, on west bank of spillway, 100 ft southwest of control structure 12-B, and 35 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1963 to September 1963, October 1966 to September 1975 (gage heights only), October 1975 to current year. Discharge records for the missing periods above were either fragmentary or unavailable from the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records good. Station is one of several located below the gated control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through structure 12-B. Discharge computed from relation between discharge, head, and gate openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions.

COOPERATION.--Gate-opening record provided U.S. Army by Corps of Engineers.

AVERAGE DISCHARGE.--16 years (water years 1964-65, 1976-89), 89.4 ft^3/s, 64,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 819 ft^3/s Sept. 23, 1976; maximum gage height, 10.22 ft Nov. 7-11, 1969; no flow for some days most years; maximum daily reverse flow, 22 ft^3/s Mar. 28, 1985; minimum gage height, 5.02 ft June 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 266 ft^3/s Oct. 6; maximum gage height, 9.54 ft Oct. 5-8; no flow for many days; minimum gage height, 5.02 ft June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	95	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	138	77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	135	77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	143	77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	230	77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	266	77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	265	77	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	259	64	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	263	54	.00	.00	.00	.00	.00	16	.00	.00	.00	.00
10	260	54	.00	.00	.00	.00	.00	24	.00	.00	.00	.00
11	247	54	.00	.00	.00	.00	.00	8.4	.00	.00	.00	.00
12	221	55	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	182	54	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	187	54	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	188	52	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	190	50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	191	51	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	184	51	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	178	51	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6
20	178	51	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
21	179	50	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
22	177	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
23	176	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
24	174	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
25	151	31	.00	.00	.00	.00	.00	.00	.00	.00	.00	13
26	127	31	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
27	126	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	13
28	126	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	13
29	124	17	.00	.00	---	.00	.00	.00	.00	.00	.00	13
30	123	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	13
31	122	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	5652	1541.00	.00	.00	.00	.00	.00	48.40	.00	.00	.00	142.60
MEAN	182	51.4	.000	.000	.000	.000	.000	1.56	.000	.000	.000	4.75
MAX	266	95	.00	.00	.00	.00	.00	24	.00	.00	.00	13
MIN	122	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	11210	3060	.00	.00	.00	.00	.00	96	.00	.00	.00	283

CAL YR 1988 TOTAL 31179.00 MEAN 85.2 MAX 638 MIN .00 AC-FT 61840
WTR YR 1989 TOTAL 7384.00 MEAN 20.2 MAX 266 MIN .00 AC-FT 14650

02289019 TAMIAMI CANAL BELOW S-12-B, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.49	8.95	8.16	7.50	7.19	6.82	6.49	6.53	5.58	6.97	7.38	7.57
2	9.52	8.81	8.14	7.48	7.18	6.85	6.47	6.55	5.45	7.04	7.35	7.58
3	9.51	8.79	8.13	7.47	7.16	6.86	6.45	6.54	5.40	7.06	7.37	7.61
4	9.51	8.79	8.13	7.46	7.14	6.86	6.47	6.51	5.36	7.07	7.44	7.61
5	9.52	8.79	8.12	7.44	7.12	6.86	6.45	6.48	5.32	7.11	7.42	7.63
6	9.52	8.78	8.10	7.43	7.10	6.86	6.51	6.52	5.29	7.11	7.38	7.61
7	9.54	8.77	8.08	7.42	7.07	6.89	6.50	6.51	5.36	7.09	7.35	7.59
8	9.53	8.73	8.07	7.41	7.05	6.96	6.46	6.47	5.42	7.05	7.37	7.58
9	9.52	8.68	8.06	7.40	7.03	7.00	6.42	6.80	5.42	7.02	7.37	7.58
10	9.51	8.67	8.06	7.40	7.01	6.99	6.38	7.04	5.40	6.99	7.41	7.58
11	9.51	8.67	8.05	7.43	7.00	6.97	6.37	6.94	5.36	6.97	7.43	7.57
12	9.39	8.66	8.05	7.41	7.00	6.95	6.44	6.63	5.32	6.96	7.44	7.58
13	9.25	8.65	8.02	7.39	6.99	6.92	6.66	6.45	5.28	7.00	7.55	7.64
14	9.25	8.64	7.92	7.37	6.97	6.89	6.66	6.36	5.24	7.11	7.54	7.68
15	9.25	8.61	7.87	7.35	6.96	6.86	6.63	6.29	5.20	7.09	7.50	7.71
16	9.25	8.54	7.85	7.33	6.95	6.84	6.60	6.32	5.15	7.06	7.47	7.75
17	9.25	8.53	7.82	7.31	6.94	6.83	6.62	6.34	5.10	7.04	7.46	7.77
18	9.24	8.53	7.80	7.30	6.95	6.82	6.63	6.47	5.07	7.09	7.50	7.78
19	9.21	8.52	7.79	7.28	6.96	6.80	6.63	6.52	5.03	7.24	7.50	7.83
20	9.20	8.51	7.77	7.28	6.95	6.77	6.57	6.46	5.06	7.29	7.53	7.92
21	9.19	8.50	7.72	7.29	6.94	6.74	6.52	6.38	5.15	7.46	7.55	7.94
22	9.19	8.47	7.68	7.38	6.93	6.71	6.51	6.30	5.23	7.44	7.55	7.94
23	9.18	8.45	7.64	7.37	6.90	6.67	6.52	6.21	5.30	7.40	7.54	7.99
24	9.17	8.42	7.61	7.34	6.88	6.64	6.50	6.15	5.34	7.37	7.52	7.97
25	9.13	8.41	7.59	7.33	6.86	6.61	6.46	6.10	5.37	7.35	7.49	7.97
26	9.08	8.39	7.58	7.31	6.84	6.58	6.40	6.07	5.43	7.40	7.48	8.01
27	9.08	8.39	7.56	7.29	6.82	6.56	6.35	6.02	5.71	7.45	7.50	8.05
28	9.07	8.38	7.55	7.27	6.81	6.53	6.32	5.96	6.21	7.42	7.55	8.04
29	9.07	8.31	7.54	7.25	---	6.50	6.35	5.88	6.74	7.42	7.55	8.04
30	9.07	8.18	7.52	7.23	---	6.47	6.43	5.83	6.84	7.41	7.55	8.03
31	9.06	---	7.51	7.21	---	6.45	---	5.77	---	7.40	7.59	---
MEAN	9.30	8.58	7.85	7.36	6.99	6.78	6.49	6.37	5.44	7.19	7.47	7.77
MAX	9.54	8.95	8.16	7.50	7.19	7.00	6.66	7.04	6.84	7.46	7.59	8.05
MIN	9.06	8.18	7.51	7.21	6.81	6.45	6.32	5.77	5.03	6.96	7.35	7.57

CAL YR 1988 MEAN 8.45 MAX 9.66 MIN 7.27
WTR YR 1989 MEAN 7.30 MAX 9.54 MIN 5.03

02289030 LEVEE 3 CANAL NEAR CLEWISTON, FL

LOCATION.--Lat 26°25'50", long 80°56'50", in NW¼ sec.4, T.47 S., R.34 E., Hendry County, Hydrologic Unit 03090202, near center of span on upstream side of bridge on private road, 100 ft upstream from Deerfence Canal, 2 mi east of state Highway 846, and 22 mi south of Clewiston (revised).

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and auxiliary water-stage recorders, 3.6 mi and 9.1 mi below upstream gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by South Florida Water Management District). Prior to October 1974 at datum 0.15 ft lower. October 1979 to September 1981, water-stage recorder and electromagnetic velocity meter at site 3.6 mi downstream at present datum. Since October 1981, auxiliary water-stage recorder at site 3.6 mi downstream at present datum. Since September 1987, auxiliary water-stage recorder site 9.1 mi downstream at present datum.

REMARKS.--Estimated daily discharge: Oct. 27 to Nov. 9, Feb. 1-15. Records poor. Flow at this location includes the flow of Deerfence Canal. Discharge computed using fall as a factor.

AVERAGE DISCHARGE.--19 years (water years 1970-87, 1989), 144 ft^3/s, 104,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,850 ft^3/s June 26, 1982; maximum gage height, 18.57 ft Aug. 4, 1973; maximum daily reverse flow, 242 ft^3/s Mar. 8, 1980; no flow for some days each year; minimum gage height, 9.65 ft May 7, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 495 ft^3/s Sept. 4; maximum gage height, 14.34 ft July 4; no flow for many days; minimum gage height, 10.82 ft June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	.00	2.8	.00	.00	.00	.00	79	.00	194	.00	.00
2	34	.00	.30	.00	.00	.00	.00	51	.00	262	.00	2.9
3	50	.00	.30	.00	.00	.00	.00	55	.00	267	.00	108
4	39	.00	5.9	.00	.00	.00	.00	63	.00	360	.00	495
5	29	.00	3.5	.00	.00	.00	.00	59	.00	354	.00	469
6	17	.00	.20	.00	.00	.00	.00	55	.00	358	.00	365
7	8.7	.00	1.3	.00	.00	.00	.00	35	.00	213	.00	230
8	3.8	.00	.00	.00	.00	.00	.00	32	.00	114	.00	182
9	15	2.3	.00	.00	.00	.00	.00	43	.00	77	1.0	147
10	12	15	.00	.70	.00	.00	.00	21	.00	36	1.9	130
11	12	12	1.1	.30	.00	.00	.00	9.4	.00	18	8.1	74
12	7.3	21	.00	2.3	.00	.00	.00	7.1	.00	.29	1.4	42
13	4.1	18	.20	1.2	.00	.00	.00	13	.00	.00	.00	31
14	.70	14	.40	.10	.00	.00	.00	15	.00	.00	6.4	33
15	1.4	18	.40	.40	.00	.00	.00	23	.00	.00	.00	16
16	1.9	22	1.5	.00	.00	.00	1.2	19	.00	.00	2.1	38
17	3.3	17	.10	.00	.00	.00	1.3	15	.00	.00	5.0	5.9
18	3.9	18	.00	.00	.00	.00	8.3	5.3	.00	1.0	6.0	39
19	2.0	12	.70	.00	.00	.00	15	4.3	.00	11	5.9	105
20	1.6	11	2.8	.00	.00	.00	18	4.3	.00	.00	14	115
21	.70	11	2.8	.50	.00	.00	23	4.6	.00	.00	24	47
22	1.0	23	.50	1.1	.00	.00	27	7.6	.00	.00	34	78
23	2.4	13	.90	1.1	.00	.00	41	7.6	.06	.00	2.7	178
24	2.0	6.4	1.0	2.5	.00	.00	43	6.3	.04	.00	12	249
25	14	8.9	.10	2.4	.00	.00	33	6.3	1.5	.00	6.0	270
26	6.2	16	.00	.10	.00	.00	30	4.5	6.6	.00	1.5	211
27	.90	17	.00	.00	.00	.00	42	6.3	16	.00	11	159
28	.00	9.2	.00	.00	.00	.00	39	4.5	34	.00	8.5	85
29	.00	2.7	.00	.00	---	.00	40	6.3	54	.00	8.4	95
30	.00	13	.00	.00	---	.00	64	7.6	103	.00	9.7	86
31	.00	---	.00	.00	---	.00	---	7.6	---	.00	3.4	---
TOTAL	305.90	300.50	26.80	12.70	.00	.00	425.80	677.6	215.20	2265.29	173.00	4085.80
MEAN	9.87	10.0	.86	.41	.000	.000	14.2	21.9	7.17	73.1	5.58	136
MAX	50	23	5.9	2.5	.00	.00	64	79	103	360	34	495
MIN	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00	.00	.00
AC-FT	607	596	53	25	.00	.00	845	1340	427	4490	343	8100

WTR YR 1989 TOTAL 8488.59 MEAN 23.3 MAX 495 MIN .00 AC-FT 16840

02289030 LEVEE 3 CANAL NEAR CLEWISTON, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.78	12.02	12.28	11.73	11.55	11.07	11.45	12.69	11.14	13.74	11.30	11.41
2	12.77	12.01	12.31	11.71	11.49	10.98	11.46	12.75	11.17	14.13	11.25	11.44
3	12.66	12.06	12.30	11.62	11.56	10.97	11.41	12.76	11.12	14.02	11.14	12.56
4	12.56	12.36	12.28	11.66	11.66	11.16	11.37	12.71	10.98	14.24	10.96	14.16
5	12.54	12.78	12.27	11.62	11.67	11.10	11.35	12.60	10.88	14.28	11.11	14.12
6	12.56	13.12	12.30	11.60	11.67	11.01	11.32	12.61	10.90	13.87	11.18	13.75
7	12.47	13.20	12.28	11.67	11.51	11.16	11.24	12.61	11.14	13.16	11.07	13.44
8	12.40	13.16	12.28	11.77	11.46	11.46	11.20	12.57	11.31	12.76	11.25	13.29
9	12.36	13.01	12.23	11.84	11.56	11.48	11.27	12.48	11.39	12.57	11.82	13.26
10	12.33	12.88	12.15	11.92	11.60	11.46	11.30	12.29	11.41	12.27	11.96	13.24
11	12.28	12.75	12.10	11.98	11.51	11.44	11.30	12.18	11.29	12.13	11.92	13.11
12	12.21	12.62	12.18	11.98	11.48	11.37	11.48	12.17	11.33	11.83	11.94	12.93
13	12.16	12.50	12.22	11.94	11.43	11.31	11.50	12.13	11.39	11.69	12.08	12.85
14	12.14	12.39	12.25	11.89	11.41	11.26	11.61	12.16	11.35	11.62	11.94	12.77
15	12.19	12.33	12.23	11.88	11.38	11.17	11.82	12.30	11.38	11.60	11.23	12.85
16	12.25	12.31	12.20	11.85	11.33	11.15	11.92	12.34	11.39	11.62	11.71	12.64
17	12.33	12.32	12.20	11.84	11.26	11.28	11.91	12.23	11.31	11.69	11.82	12.76
18	12.29	12.29	12.15	11.86	11.21	11.44	12.17	12.03	11.14	11.86	11.77	12.49
19	12.26	12.15	12.09	11.85	11.17	11.59	12.32	11.98	11.11	12.04	11.76	13.01
20	12.27	12.10	12.01	11.86	11.09	11.66	12.50	12.00	11.16	11.63	11.87	13.15
21	12.29	12.12	12.00	11.93	11.05	11.71	12.80	11.98	11.35	11.51	11.96	12.96
22	12.34	12.17	12.05	11.96	11.06	11.72	12.94	11.92	11.55	11.68	12.17	13.07
23	12.36	12.15	12.02	12.09	10.98	11.59	12.94	11.75	11.73	11.56	11.51	13.27
24	12.37	12.25	11.96	12.03	10.92	11.74	12.86	11.74	11.88	11.51	11.76	13.54
25	12.40	12.21	11.91	11.97	10.91	11.84	12.83	11.72	11.92	11.65	11.64	13.56
26	12.38	12.15	11.85	11.88	11.02	11.80	12.76	11.54	11.99	11.73	11.57	13.40
27	12.19	12.12	11.77	11.83	11.13	11.75	12 68	11.53	12.11	11.61	11.73	13.22
28	12.00	12.16	11.74	11.79	11.11	11.65	12.58	11.52	12.32	11.51	11.78	13.13
29	11.97	12.17	11.75	11.71	---	11.55	12.49	11.51	12.62	11.45	11.83	13.09
30	11.97	12.17	11.75	11.63	---	11.46	12.60	11.44	13.18	11.42	11.76	12.96
31	11.94	---	11.73	11.62	---	11.38	---	11.23	---	11.38	11.62	---
MEAN	12.32	12.40	12.09	11.82	11.33	11.41	11.98	12.11	11.50	12.25	11.63	13.05
MAX	12.78	13.20	12.31	12.09	11.67	11.84	12.94	12.76	13.18	14.28	12.17	14.16
MIN	11.94	12.01	11.73	11.60	10.91	10.97	11.20	11.23	10.88	11.38	10.96	11.41

WTR YR 1989 MEAN 11.99 MAX 14.28 MIN 10.88

02289040 TAMIAMI CANAL OUTLETS, LEVEE 67A TO 40-MILE BEND, NEAR MIAMI, FL

LOCATION.--Lat 25°45'22", long 80°43'34", in N½ sec.22, T.54 S., R.36 E., Dade County, Hydrologic Unit 03090202, on south bank of levee 29 borrow canal, 100 ft northwest of control structure 12-C, and 33 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to September 1963 (monthly discharge), October 1963 to current year.

REVISED RECORDS.--WRD FL-87-2A: 1986.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: June 24 - July 5, July 10-19. Records good, except estimated daily stage and discharge which are fair. Discharge is the total discharge through the S-12 structure A, B, C, and D from Conservation Area 3-A. Prior to October 1963 discharge was the total discharge of station, Tamiami Canal outlets, Miami to Monroe (station 02289000). The daily discharge computed from relation between discharge, head, and gate openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions.

COOPERATION.--Gate-opening records for S-12 complex provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--49 years, 437 ft^3/s, 316,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,810 ft^3/s Aug. 10, 11, 1968; maximum gage height, 10.52 ft Oct. 26, 1968; no flow for some days most years; maximum daily reverse flow, 38 ft^3/s Mar. 28, 1985; minimum gage height, 5.17 ft June 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,620 ft^3/s Oct. 2; maximum gage height, 9.81 ft Oct. 14; no flow for many days; minimum gage height, 5.17 ft June 19.

REVISIONS.--Revised figures of discharge for the water year 1983, superseding those published in the report for 1983 are give below:

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2580	3230	2270	387	443	3120	1560	845	384	555	663	808
2	2720	3210	1380	388	443	2880	1480	839	384	626	660	917
3	2720	3140	993	424	446	2680	1480	658	394	617	633	937
4	3110	3110	628	451	448	2510	1430	476	402	610	662	940
5	3840	3200	647	451	447	2400	1370	487	409	605	710	962
6	3770	3440	661	450	443	2330	1290	487	411	599	694	954
7	3790	3400	671	448	447	2260	1200	485	405	604	696	949
8	3690	3390	677	447	452	2280	1140	480	449	656	701	963
9	3620	3490	685	446	450	2290	1100	477	501	690	693	954
10	3530	3420	687	444	451	2270	1160	475	506	684	689	934
11	3470	3360	690	442	457	2250	1200	469	537	660	671	924
12	3380	3280	685	441	460	2220	1150	463	562	619	645	952
13	3290	3230	693	434	474	2160	1100	455	629	593	630	998
14	3260	3200	750	426	697	2150	1050	445	644	581	625	988
15	3320	3170	744	424	1110	2130	1020	436	615	573	643	983
16	3290	3100	747	422	1100	2310	1080	433	583	563	657	997
17	3210	3070	758	417	1870	2340	1090	436	556	554	662	1010
18	3290	3100	756	417	2590	2290	1070	444	535	546	662	1020
19	3310	3050	750	414	2520	2330	1050	460	538	540	692	1060
20	3330	3010	747	420	2470	2300	1070	458	582	543	709	1080
21	3310	2960	744	431	2750	2340	1070	453	620	565	672	1100
22	3320	2910	743	433	3510	2270	1060	440	583	605	677	1120
23	3330	2860	738	447	3420	2070	994	432	589	602	675	1130
24	3360	2830	736	469	3260	1940	996	427	570	599	693	1170
25	3350	2770	735	474	3080	1860	997	416	577	594	732	1240
26	3350	2710	731	475	2940	1790	991	417	587	588	731	1250
27	3290	2670	727	463	3040	1690	860	411	553	600	726	1260
28	3230	2610	729	455	3100	1630	829	401	523	632	731	1260
29	3210	2410	720	454	---	1610	852	384	505	662	757	1280
30	3190	2190	573	451	---	1550	843	373	500	670	770	1260
31	3190	---	384	449	---	1620	---	378	---	653	766	---
TOTAL	102650	91520	24179	13594	43318	67890	33582	14740	15633	18788	21327	31400
MEAN	3311	3051	780	439	1547	2190	1119	475	521	606	688	1047
MAX	3840	3490	2270	475	3510	3120	1560	845	644	690	770	1280
MIN	2580	2190	384	387	443	1550	829	373	384	540	625	808
AC-FT	203600	181500	47960	26960	85920	134700	66610	29240	31010	37270	42300	62280

CAL YR 1982	TOTAL	536552	MEAN	1470	MAX	4080	MIN 13	AC-FT 1064000
WTR YR 1983	TOTAL	478621	MEAN	1311	MAX	3840	MIN 373	AC-FT 949300

02289040 TAMIAMI CANAL OUTLETS, LEVEE 67A TO 40-MILE BEND, NEAR MIAMI, FL

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1570	441	110	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	1620	386	110	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	1560	387	109	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	1380	387	108	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	1330	386	107	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	1400	387	85	.00	.00	.00	.00	.00	.00	.00	.00	9.3
7	1420	386	63	.00	.00	.00	.00	.00	.00	.00	.00	16
8	1420	348	63	.00	.00	.00	.00	.00	.00	.00	.00	16
9	1410	315	62	.00	.00	.00	.00	37	.00	.00	.00	16
10	1400	315	62	.00	.00	.00	.00	59	.00	.00	.00	16
11	1380	315	61	.00	.00	.00	.00	20	.00	.00	.00	16
12	1110	315	61	.00	.00	.00	.00	.00	.00	.00	.00	24
13	852	314	46	.00	.00	.00	.00	.00	.00	.00	.00	30
14	875	314	30	.00	.00	.00	.00	.00	.00	.00	.00	30
15	883	260	29	.00	.00	.00	.00	.00	.00	.00	.00	30
16	889	186	29	.00	.00	.00	.00	.00	.00	.00	.00	30
17	889	188	29	.00	.00	.00	.00	.00	.00	.00	.00	30
18	801	188	29	.00	.00	.00	.00	.00	.00	.00	.00	30
19	708	188	29	.00	.00	.00	.00	.00	.00	.00	.00	37
20	710	188	12	.00	.00	.00	.00	.00	.00	.00	.00	43
21	712	187	.00	.00	.00	.00	.00	.00	.00	.00	.00	43
22	708	161	.00	.00	.00	.00	.00	.00	.00	.00	.00	43
23	702	126	.00	.00	.00	.00	.00	.00	.00	.00	.00	44
24	697	126	.00	.00	.00	.00	.00	.00	.00	.00	.00	44
25	619	127	.00	.00	.00	.00	.00	.00	.00	.00	.00	45
26	535	127	.00	.00	.00	.00	.00	.00	.00	.00	.00	50
27	534	126	.00	.00	.00	.00	.00	.00	.00	.00	.00	57
28	533	126	.00	.00	.00	.00	.00	.00	.00	.00	.00	58
29	531	123	.00	.00	---	.00	.00	.00	.00	.00	.00	58
30	526	113	.00	.00	---	.00	.00	.00	.00	.00	.00	58
31	523	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	30227	7536	1234.00	.00	.00	.00	.00	116.00	.00	.00	.00	873.30
MEAN	975	251	39.8	.000	.000	.000	.000	3.74	.000	.000	.000	29.1
MAX	1620	441	110	.00	.00	.00	.00	59	.00	.00	.00	58
MIN	523	113	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	59960	14950	2450	.00	.00	.00	.00	230	.00	.00	.00	1730

CAL YR 1988 TOTAL 174692.40 MEAN 477 MAX 2520 MIN .00 AC-FT 346500
WTR YR 1989 TOTAL 39986.30 MEAN 110 MAX 1620 MIN .00 AC-FT 79310

02289040 TAMIAMI CANAL OUTLETS, LEVEE 67A TO 40-MILE BEND, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.67	9.61	9.41	8.80	8.04	7.80	7.08	7.36	5.79	7.64	7.85	8.33
2	9.70	9.62	9.41	8.77	7.99	7.84	7.03	7.47	5.70	7.68	7.84	8.36
3	9.67	9.62	9.37	8.74	7.90	7.87	6.98	7.27	5.60	7.70	7.84	8.40
4	9.68	9.62	9.35	8.73	7.78	7.97	6.92	7.25	5.55	7.71	7.88	8.42
5	9.76	9.60	9.32	8.70	7.66	7.90	6.93	7.17	5.48	7.69	7.83	8.46
6	9.77	9.60	9.30	8.66	7.58	7.87	7.11	7.20	5.44	7.71	7.78	8.46
7	9.80	9.59	9.28	8.63	7.51	7.90	6.98	7.29	5.77	7.68	7.75	8.47
8	9.80	9.58	9.27	8.61	7.46	7.96	6.98	7.29	5.90	7.64	7.77	8.49
9	9.78	9.58	9.25	8.58	7.49	7.94	6.95	7.22	5.89	7.63	7.76	8.50
10	9.77	9.57	9.23	8.56	7.49	7.95	6.86	7.07	5.86	7.59	7.77	8.49
11	9.75	9.57	9.20	8.56	7.48	7.93	6.82	6.97	5.79	7.50	7.81	8.50
12	9.75	9.56	9.19	8.53	7.50	7.84	6.85	6.60	5.70	7.45	7.87	8.50
13	9.79	9.54	9.20	8.49	7.47	7.77	6.96	6.48	5.60	7.40	7.91	8.49
14	9.80	9.54	9.18	8.45	7.45	7.77	6.91	6.41	5.52	7.46	7.92	8.48
15	9.80	9.53	9.15	8.41	7.42	7.77	6.96	6.42	5.41	7.50	7.95	8.49
16	9.80	9.53	9.12	8.36	7.41	7.75	7.22	6.84	5.35	7.49	7.97	8.50
17	9.78	9.53	9.12	8.32	7.60	7.67	7.28	6.94	5.30	7.57	7.97	8.52
18	9.77	9.52	9.11	8.28	7.66	7.62	7.40	7.02	5.27	7.64	8.00	8.55
19	9.77	9.51	9.08	8.24	7.70	7.57	7.16	6.83	5.21	7.64	8.03	8.60
20	9.76	9.50	9.05	8.20	7.70	7.50	6.86	6.66	5.42	7.68	8.11	8.61
21	9.75	9.49	9.02	8.30	7.66	7.43	7.38	6.53	5.59	7.77	8.12	8.61
22	9.73	9.48	9.01	8.31	7.65	7.37	7.51	6.39	5.74	7.81	8.15	8.61
23	9.70	9.47	8.99	8.35	7.65	7.28	7.49	6.29	5.78	7.81	8.18	8.69
24	9.69	9.49	8.97	8.36	7.54	7.28	7.38	6.20	5.76	7.80	8.19	8.71
25	9.68	9.50	8.95	8.34	7.36	7.29	7.10	6.32	5.76	7.81	8.20	8.73
26	9.68	9.48	8.94	8.32	7.27	7.27	7.00	6.18	5.87	7.81	8.21	8.77
27	9.66	9.47	8.92	8.28	7.31	7.26	7.07	6.15	6.22	7.84	8.22	8.81
28	9.65	9.47	8.89	8.24	7.41	7.21	7.04	5.97	6.51	7.84	8.27	8.81
29	9.64	9.46	8.87	8.17	---	7.15	7.08	5.88	7.08	7.83	8.29	8.81
30	9.62	9.43	8.85	8.11	---	7.07	7.21	5.91	7.36	7.83	8.29	8.80
31	9.61	---	8.83	8.04	---	7.04	---	5.85	---	7.83	8.31	---
MEAN	9.73	9.54	9.12	8.43	7.58	7.61	7.08	6.69	5.77	7.68	8.00	8.57
MAX	9.80	9.62	9.41	8.80	8.04	7.97	7.51	7.47	7.36	7.84	8.31	8.81
MIN	9.61	9.43	8.83	8.04	7.27	7.04	6.82	5.85	5.21	7.40	7.75	8.33

CAL YR 1988 MEAN 9.40 MAX 10.15 MIN 8.32
WTR YR 1989 MEAN 7.99 MAX 9.80 MIN 5.21

02289041 TAMIAMI CANAL BELOW S-12-C, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°43'34", in N½ sec.22, T.54 S., R.36 E., Hydrologic Unit 03090202, on west bank of spillway, 100 ft southwest of control structure 12-C, and 33 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1963 to September 1963, October 1965 to September 1976 (gage heights only), October 1963 to September 1965, October 1976 to current year. Discharge records for missing periods were fragmentary or missing from the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily stage and discharge: July 10-19. Records good except those for estimated daily stage and discharge which are fair. Station is one of several located downstream from the control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through control structure 12-C. Discharge is the total discharge through the S-12-C structure, from Conservation Area 3A. The daily discharge computed from relation between discharge, head, and gate-openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions.

COOPERATION.--Gate-opening records for S-12-C provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--15 years (water years 1964-65, 1977-89), 229 ft^3/s, 165,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,340 ft^3/s Oct. 17, 1978; maximum gage heights, 10.36 ft Nov. 5-8, 10, 1969; no flow for some days most years; maximum daily reverse flow, 13 ft^3/s Feb. 27, 1985; minimum gage height, 4.87 ft June 19, 20, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 528 ft^3/s Oct. 2; maximum gage height, 9.71 ft Oct. 1; no flow for many days; minimum gage height, 4.87 ft June 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	146	60	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	528	153	60	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	508	154	60	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	407	154	59	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	340	153	59	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	353	154	45	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	362	153	33	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	363	154	33	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	362	154	32	.00	.00	.00	.00	21	.00	.00	.00	.00
10	359	154	32	.00	.00	.00	.00	35	.00	.00	.00	.00
11	357	154	32	.00	.00	.00	.00	12	.00	.00	.00	.00
12	298	153	32	.00	.00	.00	.00	.00	.00	.00	.00	10
13	244	153	16	.00	.00	.00	.00	.00	.00	.00	.00	19
14	248	153	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
15	250	108	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
16	251	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
17	250	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
18	216	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
19	179	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
20	180	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
21	180	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
22	179	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	19
23	177	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	20
24	176	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	20
25	160	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	20
26	143	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	21
27	143	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	21
28	143	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	21
29	143	53	.00	.00	---	.00	.00	.00	.00	.00	.00	21
30	142	60	.00	.00	---	.00	.00	.00	.00	.00	.00	21
31	142	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	8288	2961	553.00	.00	.00	.00	.00	68.00	.00	.00	.00	365.00
MEAN	267	98.7	17.8	.000	.000	.000	.000	2.19	.000	.000	.000	12.2
MAX	528	154	60	.00	.00	.00	.00	35	.00	.00	.00	21
MIN	142	46	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	16440	5870	1100	.00	.00	.00	.00	135	.00	.00	.00	724

CAL YR 1988 TOTAL 51804.20 MEAN 142 MAX 813 MIN .00 AC-FT 102800
WTR YR 1989 TOTAL 12235.00 MEAN 33.5 MAX 528 MIN .00 AC-FT 24270

02289041 TAMIAMI CANAL BELOW S-12-C, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.66	8.49	8.17	7.47	7.19	6.82	6.49	6.51	5.48	6.92	7.33	7.49
2	9.69	8.40	8.16	7.46	7.17	6.85	6.46	6.54	5.42	7.00	7.30	7.52
3	9.65	8.38	8.16	7.45	7.16	6.86	6.46	6.54	5.36	7.02	7.32	7.56
4	9.52	8.38	8.15	7.43	7.14	6.86	6.46	6.49	5.31	7.04	7.38	7.54
5	9.25	8.37	8.14	7.41	7.12	6.86	6.45	6.46	5.26	7.08	7.35	7.55
6	9.23	8.36	8.12	7.41	7.09	6.86	6.52	6.48	5.21	7.07	7.32	7.53
7	9.23	8.35	8.09	7.40	7.07	6.89	6.51	6.48	5.24	7.04	7.31	7.54
8	9.22	8.35	8.08	7.39	7.05	6.96	6.46	6.44	5.28	7.01	7.33	7.56
9	9.21	8.33	8.07	7.38	7.03	7.00	6.42	6.75	5.29	6.97	7.32	7.56
10	9.21	8.33	8.07	7.38	7.01	6.99	6.38	7.06	5.27	6.96	7.35	7.56
11	9.20	8.32	8.07	7.40	7.01	6.97	6.37	6.94	5.25	6.95	7.38	7.55
12	9.12	8.32	8.06	7.39	7.00	6.94	6.43	6.64	5.20	6.94	7.38	7.61
13	8.98	8.32	8.01	7.37	6.99	6.91	6.63	6.45	5.16	6.93	7.48	7.75
14	8.95	8.31	7.87	7.35	6.98	6.88	6.65	6.36	5.11	6.97	7.47	7.77
15	8.94	8.29	7.84	7.33	6.96	6.86	6.65	6.28	5.06	6.97	7.45	7.79
16	8.93	8.23	7.82	7.32	6.94	6.84	6.65	6.30	5.01	6.95	7.42	7.81
17	8.92	8.23	7.80	7.30	6.93	6.82	6.61	6.32	4.96	6.94	7.42	7.83
18	8.86	8.22	7.78	7.29	6.96	6.81	6.62	6.33	4.92	6.99	7.47	7.84
19	8.78	8.22	7.76	7.27	6.96	6.79	6.62	6.31	4.88	7.06	7.46	7.85
20	8.77	8.21	7.75	7.26	6.95	6.77	6.56	6.25	4.96	7.22	7.47	7.87
21	8.76	8.21	7.68	7.28	6.94	6.73	6.51	6.17	5.12	7.37	7.49	7.88
22	8.75	8.21	7.63	7.36	6.93	6.70	6.50	6.09	5.26	7.37	7.49	7.88
23	8.74	8.21	7.59	7.36	6.92	6.67	6.51	6.02	5.33	7.33	7.48	7.90
24	8.73	8.19	7.57	7.33	6.89	6.64	6.49	5.94	5.37	7.31	7.46	7.89
25	8.68	8.19	7.55	7.31	6.87	6.61	6.45	5.89	5.39	7.29	7.44	7.89
26	8.60	8.18	7.55	7.30	6.85	6.58	6.39	5.87	5.43	7.36	7.42	7.91
27	8.58	8.18	7.54	7.28	6.82	6.56	6.34	5.82	5.60	7.42	7.44	7.92
28	8.58	8.18	7.53	7.26	6.81	6.53	6.31	5.75	6.01	7.39	7.48	7.91
29	8.57	8.18	7.51	7.25	---	6.50	6.32	5.68	6.66	7.38	7.46	7.91
30	8.56	8.18	7.50	7.23	---	6.46	6.40	5.61	6.80	7.38	7.46	7.90
31	8.55	---	7.48	7.21	---	6.45	---	5.55	---	7.37	7.48	---
MEAN	8.98	8.28	7.84	7.34	6.99	6.77	6.49	6.27	5.35	7.13	7.41	7.74
MAX	9.69	8.49	8.17	7.47	7.19	7.00	6.65	7.06	6.80	7.42	7.49	7.92
MIN	8.55	8.18	7.48	7.21	6.81	6.45	6.31	5.55	4.88	6.92	7.30	7.49

CAL YR 1988 MEAN 8.30 MAX 9.88 MIN 6.37
WTR YR 1989 MEAN 7.22 MAX 9.69 MIN 4.88

254543080405400 TAMIAMI CANAL ABOVE S-12-D, NEAR MIAMI, FL

LOCATION.--Lat 25°45'43", long 80°40'54", in sec.14, T.54 S., R.36 E., Dade County, Hydrologic Unit 03090202, on north bank of Levee 29, 200 ft northeast of structure S-12-D, 30 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1981 to current year (gage heights only). Records prior to October 1981 are fragmentary or missing from files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage. Station is one of several located above the gated control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through Structure 12-D.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.38 ft Feb. 16, 17, 1983; minimum, 5.16 ft June 19, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.87 ft Oct. 7, 14, 15; minimum, 5.16 ft June 19.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.74	9.57	9.40	8.76	8.01	7.78	7.06	7.33	5.76	7.62	7.81	8.30
2	9.76	9.62	9.39	8.73	7.97	7.82	7.01	7.46	5.68	7.66	7.80	8.33
3	9.71	9.61	9.35	8.71	7.89	7.85	6.95	7.26	5.58	7.68	7.81	8.37
4	9.73	9.61	9.33	8.69	7.74	7.95	6.90	7.23	5.53	7.69	7.85	8.40
5	9.81	9.58	9.29	8.66	7.57	7.88	6.90	7.16	5.46	7.66	7.80	8.44
6	9.83	9.58	9.26	8.62	7.47	7.85	7.08	7.18	5.42	7.68	7.75	8.44
7	9.86	9.58	9.25	8.59	7.41	7.88	6.97	7.27	5.76	7.65	7.72	8.45
8	9.86	9.58	9.24	8.57	7.38	7.94	6.96	7.27	5.89	7.61	7.74	8.46
9	9.84	9.57	9.21	8.54	7.41	7.92	6.93	7.21	5.88	7.59	7.73	8.46
10	9.83	9.55	9.20	8.52	7.43	7.93	6.84	7.07	5.83	7.56	7.74	8.46
11	9.81	9.52	9.16	8.52	7.44	7.92	6.80	6.98	5.77	7.48	7.78	8.46
12	9.81	9.51	9.16	8.48	7.46	7.82	6.83	6.60	5.68	7.41	7.84	8.46
13	9.84	9.51	9.16	8.45	7.44	7.75	6.94	6.47	5.57	7.37	7.88	8.46
14	9.86	9.50	9.14	8.41	7.43	7.75	6.88	6.39	5.49	7.43	7.89	8.45
15	9.86	9.51	9.11	8.37	7.40	7.75	6.94	6.39	5.38	7.47	7.91	8.45
16	9.85	9.50	9.09	8.32	7.38	7.72	7.20	6.82	5.32	7.46	7.94	8.46
17	9.84	9.50	9.10	8.28	7.57	7.64	7.25	6.93	5.26	7.55	7.94	8.49
18	9.81	9.50	9.08	8.24	7.63	7.59	7.38	7.00	5.23	7.61	7.97	8.53
19	9.80	9.49	9.06	8.20	7.67	7.55	7.11	6.81	5.19	7.61	8.00	8.58
20	9.78	9.48	9.01	8.16	7.67	7.48	6.85	6.64	5.40	7.65	8.08	8.59
21	9.77	9.48	8.98	8.27	7.63	7.41	7.36	6.52	5.57	7.73	8.10	8.58
22	9.75	9.47	8.97	8.29	7.63	7.35	7.49	6.37	5.71	7.78	8.13	8.59
23	9.71	9.48	8.95	8.32	7.63	7.26	7.46	6.28	5.75	7.77	8.16	8.67
24	9.69	9.48	8.93	8.33	7.52	7.27	7.35	6.19	5.72	7.76	8.17	8.68
25	9.68	9.47	8.91	8.32	7.35	7.27	7.07	6.31	5.73	7.77	8.18	8.70
26	9.67	9.46	8.90	8.29	7.25	7.25	6.98	6.16	5.84	7.77	8.18	8.74
27	9.65	9.45	8.87	8.26	7.29	7.23	7.05	6.13	6.19	7.81	8.20	8.78
28	9.64	9.46	8.85	8.20	7.39	7.18	7.01	5.95	6.47	7.81	8.25	8.78
29	9.62	9.46	8.83	8.14	---	7.12	7.06	5.86	7.05	7.80	8.27	8.77
30	9.56	9.44	8.81	8.09	---	7.05	7.18	5.87	7.33	7.80	8.27	8.77
31	9.54	---	8.79	8.03	---	7.02	---	5.82	---	7.80	8.29	---
MEAN	9.76	9.52	9.09	8.40	7.54	7.59	7.06	6.68	5.75	7.65	7.97	8.54
MAX	9.86	9.62	9.40	8.76	8.01	7.95	7.49	7.46	7.33	7.81	8.29	8.78
MIN	9.54	9.44	8.79	8.03	7.25	7.02	6.80	5.82	5.19	7.37	7.72	8.30

CAL YR 1988 MEAN 9.39 MAX 10.12 MIN 8.28
WTR YR 1989 MEAN 7.97 MAX 9.86 MIN 5.19

254543080405401 TAMIAMI CANAL BELOW S-12-D, NEAR MIAMI, FL

LOCATION.--Lat 25°45'43", long 80°40'54", in sec.14, T.54 S., R.36 E., Hydrologic Unit 03090202, on west bank 75 ft downstream of structure 12-D, and 30 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1963 to September 1965, October 1975 to September 1977, October 1978 to September 1979, October 1980 to September 1981, discharge only, October 1981 to current year. Discharge and stage record for missing periods were fragmentary or missing from the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records good. Station is one of several located downstream from the control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through control structure 12-D. Discharge is the total discharge through the S-12-D structure, from Conservation Area 3A. The daily discharge computed from relation between discharge, head, and gate openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions.

COOPERATION.--Gate-opening record for S-12-D provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--14 years (water years 1964-65, 1976-77, 1979-89), 139 ft^3/s, 100,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,640 ft^3/s; maximum gage height, 10.27 ft Nov. 5, 6, 1982; no flow for some days most years; maximum daily reverse flow, 16 ft^3/s Mar. 28, 1985; minimum gage height, 4.70 ft June 20, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 660 ft^3/s Oct. 2; maximum gage height, 9.77 ft Oct. 1, 2; no flow for many days; minimum gage height, 4.70 ft June 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	639	103	50	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	660	77	50	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	627	77	49	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	528	76	49	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	446	76	48	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	463	76	40	.00	.00	.00	.00	.00	.00	.00	.00	9.3
7	478	76	30	.00	.00	.00	.00	.00	.00	.00	.00	16
8	485	63	30	.00	.00	.00	.00	.00	.00	.00	.00	16
9	486	51	30	.00	.00	.00	.00	.00	.00	.00	.00	16
10	487	51	30	.00	.00	.00	.00	.00	.00	.00	.00	16
11	485	51	29	.00	.00	.00	.00	.00	.00	.00	.00	16
12	371	51	29	.00	.00	.00	.00	.00	.00	.00	.00	14
13	256	51	30	.00	.00	.00	.00	.00	.00	.00	.00	11
14	263	51	30	.00	.00	.00	.00	.00	.00	.00	.00	11
15	266	51	29	.00	.00	.00	.00	.00	.00	.00	.00	11
16	267	51	29	.00	.00	.00	.00	.00	.00	.00	.00	11
17	266	51	29	.00	.00	.00	.00	.00	.00	.00	.00	11
18	223	51	29	.00	.00	.00	.00	.00	.00	.00	.00	11
19	176	51	29	.00	.00	.00	.00	.00	.00	.00	.00	12
20	176	51	12	.00	.00	.00	.00	.00	.00	.00	.00	12
21	177	51	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
22	176	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
23	174	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
24	174	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
25	159	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
26	143	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
27	143	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	12
28	142	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	13
29	142	34	.00	.00	---	.00	.00	.00	.00	.00	.00	13
30	139	50	.00	.00	---	.00	.00	.00	.00	.00	.00	13
31	138	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	9755	1531	681.00	.00	.00	.00	.00	.00	.00	.00	.00	316.30
MEAN	315	51.0	22.0	.000	.000	.000	.000	.000	.000	.000	.000	10.5
MAX	660	103	50	.00	.00	.00	.00	.00	.00	.00	.00	16
MIN	138	20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	19350	3040	1350	.00	.00	.00	.00	.00	.00	.00	.00	627

CAL YR 1988	TOTAL	56417.50	MEAN	154	MAX 885	MIN .00	AC-FT	111900
WTR YR 1989	TOTAL	12283.30	MEAN	33.7	MAX 660	MIN .00	AC-FT	24360

254543080405401 TAMIAMI CANAL BELOW S-12-D, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.72	8.26	7.93	7.31	7.10	6.78	6.50	6.46	5.45	6.69	6.93	6.95
2	9.75	8.16	7.92	7.30	7.08	6.80	6.47	6.50	5.39	6.74	6.91	7.01
3	9.70	8.14	7.92	7.29	7.06	6.80	6.46	6.49	5.33	6.76	6.91	7.04
4	9.59	8.15	7.92	7.27	7.05	6.80	6.49	6.45	5.28	6.81	6.93	7.01
5	9.31	8.14	7.92	7.25	7.03	6.80	6.48	6.42	5.22	6.87	6.91	7.00
6	9.29	8.13	7.89	7.25	7.02	6.80	6.54	6.43	5.17	6.84	6.89	7.15
7	9.29	8.12	7.82	7.24	7.00	6.82	6.53	6.43	5.15	6.81	6.88	7.39
8	9.27	8.08	7.82	7.23	6.99	6.87	6.49	6.40	5.15	6.78	6.90	7.41
9	9.25	8.02	7.81	7.22	6.97	6.89	6.44	6.45	5.15	6.76	6.91	7.41
10	9.23	8.01	7.81	7.23	6.95	6.89	6.40	6.74	5.14	6.73	6.92	7.40
11	9.22	8.01	7.81	7.23	6.92	6.87	6.39	6.73	5.11	6.72	6.93	7.39
12	9.08	8.00	7.80	7.22	6.91	6.85	6.42	6.59	5.08	6.70	6.91	7.31
13	8.81	7.99	7.80	7.21	6.90	6.83	6.58	6.43	5.05	6.70	6.96	7.11
14	8.77	7.99	7.77	7.20	6.89	6.81	6.61	6.34	5.01	6.74	6.97	7.08
15	8.76	7.98	7.76	7.19	6.88	6.79	6.59	6.27	4.96	6.74	6.95	7.08
16	8.74	7.97	7.75	7.19	6.87	6.79	6.57	6.26	4.90	6.72	6.97	7.07
17	8.73	7.97	7.74	7.18	6.85	6.77	6.58	6.28	4.85	6.71	6.99	7.07
18	8.66	7.96	7.73	7.17	6.86	6.76	6.59	6.29	4.80	6.76	7.02	7.08
19	8.56	7.96	7.72	7.16	6.86	6.76	6.59	6.27	4.74	6.83	6.99	7.09
20	8.54	7.95	7.66	7.15	6.86	6.74	6.54	6.23	4.70	6.86	7.00	7.07
21	8.52	7.95	7.52	7.16	6.85	6.71	6.50	6.16	4.76	6.93	6.99	7.05
22	8.50	7.93	7.47	7.19	6.85	6.68	6.49	6.08	4.91	6.94	6.98	7.05
23	8.49	7.88	7.45	7.19	6.84	6.65	6.50	6.01	5.01	6.91	6.97	7.10
24	8.48	7.87	7.43	7.18	6.82	6.63	6.48	5.93	5.07	6.91	6.96	7.06
25	8.44	7.86	7.41	7.17	6.80	6.61	6.45	5.87	5.12	6.90	6.96	7.05
26	8.39	7.86	7.37	7.15	6.79	6.58	6.40	5.84	5.16	6.98	6.95	7.05
27	8.38	7.86	7.36	7.15	6.77	6.56	6.36	5.79	5.27	7.02	6.96	7.05
28	8.37	7.86	7.34	7.14	6.76	6.53	6.31	5.73	5.66	6.98	6.96	7.04
29	8.36	7.88	7.33	7.13	---	6.50	6.31	5.66	6.44	6.96	6.97	7.03
30	8.35	7.93	7.32	7.12	---	6.48	6.37	5.58	6.60	6.96	6.97	7.02
31	8.34	---	7.31	7.11	---	6.46	---	5.52	---	6.95	6.97	---
MEAN	8.87	8.00	7.66	7.20	6.91	6.73	6.48	6.21	5.19	6.83	6.95	7.12
MAX	9.75	8.26	7.93	7.31	7.10	6.89	6.61	6.74	6.60	7.02	7.02	7.41
MIN	8.34	7.86	7.31	7.11	6.76	6.46	6.31	5.52	4.70	6.69	6.88	6.95

CAL YR 1988 MEAN 8.08 MAX 9.99 MIN 7.11
WTR YR 1989 MEAN 7.02 MAX 9.75 MIN 4.70

02289050 TAMIAMI CANAL ABOVE S-333 NEAR MIAMI, FL

LOCATION.--Lat 25°45'39", long 80°40'27", in S½ sec.6, T.54 S., R.37 E., Dade County, Hydrologic Unit 03090202, on right bank in control house of control structure 333 at Levee 67A, 100 ft north of U.S. Highway 41 and 29 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1978 to September 1981 (gage heights), October 1981 to current year. Records prior to October 1981 are available in files of the South Florida Water Management District.

REVISED RECORDS.--WDR FL-87-2A: 1986.

GAGE.--Water-stage recorder and gate-opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Estimated daily stage: June 14-20. Records fair except those for estimated daily stage which are poor. Flow is regulated by operation of control structure 333. Discharge computed from relations between discharge, head, and gate opening.

COOPERATION.--Control structure 333 gate-operation records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--8 years, 227 ft^3/s, 164,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,610 ft^3/s May 14, 1985; maximum gage height, 10.40 ft Nov. 5, 1982; no flow for many days each year; minimum gage height, 5.20 ft June 19, 1989 (estimated).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 555 ft^3/s Oct. 23; maximum gage height, 9.93 ft Oct. 7; no flow for many days; minimum gage height, 5.20 ft June 19 (estimated).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	454	107	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	472	393	107	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	470	392	106	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	426	390	106	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	372	388	106	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	149	389	81	.00	.00	.00	.00	.00	.00	.00	.00	20
7	.00	389	53	.00	.00	.00	.00	.00	.00	.00	.00	38
8	.00	314	53	.00	.00	.00	.00	.00	.00	.00	.00	38
9	.00	259	53	.00	.00	.00	.00	.00	.00	.00	.00	38
10	.00	260	53	.00	.00	.00	.00	.00	.00	.00	.00	38
11	.00	260	53	.00	.00	.00	.00	.00	.00	.00	.00	38
12	.00	260	53	.00	.00	.00	.00	.00	.00	.00	.00	49
13	.00	260	40	.00	.00	.00	.00	.00	.00	.00	.00	63
14	.00	260	26	.00	.00	.00	.00	.00	.00	.00	.00	63
15	.00	224	26	.00	.00	.00	.00	.00	.00	.00	.00	63
16	.00	184	26	.00	.00	.00	.00	.00	.00	.00	.00	63
17	182	185	26	.00	.00	.00	.00	.00	.00	.00	.00	63
18	289	185	26	.00	.00	.00	.00	.00	.00	.00	.00	64
19	288	185	26	.00	.00	.00	.00	.00	.00	.00	.00	64
20	287	185	12	.00	.00	.00	.00	.00	.00	.00	.00	64
21	287	185	.00	.00	.00	.00	.00	.00	.00	.00	.00	64
22	444	154	.00	.00	.00	.00	.00	.00	.00	.00	.00	64
23	555	133	.00	.00	.00	.00	.00	.00	.00	.00	.00	65
24	551	134	.00	.00	.00	.00	.00	.00	.00	.00	.00	65
25	549	134	.00	.00	.00	.00	.00	.00	.00	.00	.00	65
26	548	133	.00	.00	.00	.00	.00	.00	.00	.00	.00	77
27	545	133	.00	.00	.00	.00	.00	.00	.00	.00	.00	91
28	543	134	.00	.00	.00	.00	.00	.00	.00	.00	.00	91
29	542	121	.00	.00	---	.00	.00	.00	.00	.00	.00	91
30	540	107	.00	.00	---	.00	.00	.00	.00	.00	.00	91
31	539	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	9050.00	7184	1139.00	.00	.00	.00	.00	.00	.00	.00	00	1530.00
MEAN	292	239	36.7	.000	.000	.000	.000	.000	.000	.000	.000	51.0
MAX	555	454	107	.00	.00	.00	.00	.00	.00	.00	.00	91
MIN	.00	107	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	950	14250	2260	.00	.00	.00	.00	.00	.00	.00	.00	3030

CAL YR 1988 TOTAL 76012.00 MEAN 208 MAX 736 MIN .00 AC-FT 150800
WTR YR 1989 TOTAL 18903.00 MEAN 51.8 MAX 555 MIN .00 AC-FT 37490

02289050 TAMIAMI CANAL ABOVE S-333 NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.79	9.64	9.42	8.78	8.03	7.81	7.08	7.34	5.77	7.65	7.83	8.32
2	9.81	9.65	9.42	8.76	7.98	7.84	7.02	7.47	5.69	7.70	7.82	8.35
3	9.77	9.64	9.38	8.73	7.88	7.86	6.97	7.27	5.59	7.72	7.83	8.39
4	9.78	9.64	9.36	8.72	7.76	7.97	6.91	7.24	5.55	7.73	7.87	8.42
5	9.86	9.62	9.33	8.69	7.65	7.90	6.91	7.16	5.52	7.70	7.81	8.46
6	9.89	9.62	9.30	8.64	7.57	7.87	7.10	7.19	5.52	7.71	7.76	8.47
7	9.92	9.61	9.29	8.62	7.50	7.90	6.99	7.28	5.76	7.67	7.73	8.48
8	9.92	9.60	9.27	8.59	7.46	7.96	6.97	7.28	5.89	7.63	7.75	8.48
9	9.90	9.60	9.25	8.56	7.48	7.95	6.94	7.22	5.88	7.61	7.75	8.48
10	9.89	9.60	9.23	8.55	7.48	7.96	6.86	7.07	5.84	7.58	7.76	8.48
11	9.87	9.59	9.20	8.54	7.48	7.95	6.81	6.98	5.78	7.49	7.80	8.48
12	9.86	9.58	9.19	8.51	7.50	7.85	6.84	6.61	5.69	7.43	7.85	8.48
13	9.89	9.57	9.19	8.47	7.46	7.78	6.96	6.48	5.59	7.39	7.90	8.48
14	9.89	9.56	9.18	8.43	7.44	7.77	6.90	6.40	5.51	7.45	7.91	8.47
15	9.88	9.56	9.15	8.39	7.41	7.77	6.95	6.39	5.40	7.49	7.94	8.47
16	9.88	9.55	9.12	8.34	7.40	7.75	7.21	6.82	5.33	7.48	7.96	8.49
17	9.86	9.55	9.13	8.30	7.60	7.67	7.27	6.93	5.27	7.56	7.96	8.51
18	9.83	9.54	9.12	8.26	7.66	7.61	7.40	7.01	5.24	7.63	7.99	8.55
19	9.82	9.52	9.09	8.22	7.70	7.57	7.15	6.82	5.20	7.63	8.02	8.61
20	9.81	9.51	9.05	8.18	7.69	7.49	6.85	6.65	5.41	7.67	8.10	8.62
21	9.80	9.51	9.02	8.29	7.66	7.42	7.37	6.52	5.60	7.75	8.12	8.62
22	9.77	9.49	9.01	8.30	7.66	7.36	7.50	6.38	5.74	7.79	8.15	8.62
23	9.74	9.48	8.99	8.34	7.66	7.28	7.47	6.29	5.78	7.79	8.18	8.70
24	9.72	9.51	8.97	8.35	7.55	7.28	7.37	6.19	5.76	7.78	8.18	8.72
25	9.70	9.51	8.94	8.34	7.37	7.29	7.09	6.32	5.77	7.79	8.19	8.74
26	9.70	9.49	8.93	8.31	7.27	7.26	6.99	6.17	5.88	7.79	8.19	8.77
27	9.68	9.48	8.91	8.28	7.31	7.25	7.06	6.14	6.22	7.82	8.21	8.80
28	9.67	9.48	8.88	8.22	7.41	7.19	7.03	5.96	6.49	7.83	8.26	8.81
29	9.66	9.47	8.86	8.16	---	7.14	7.07	5.86	7.08	7.82	8.28	8.80
30	9.64	9.44	8.84	8.11	---	7.07	7.19	5.88	7.36	7.81	8.28	8.80
31	9.62	---	8.81	8.04	---	7.04	---	5.83	---	7.82	8.30	---
MEAN	9.80	9.55	9.12	8.42	7.57	7.61	7.07	6.68	5.77	7.67	7.99	8.56
MAX	9.92	9.65	9.42	8.78	8.03	7.97	7.50	7.47	7.36	7.83	8.30	8.81
MIN	9.62	9.44	8.81	8.04	7.27	7.04	6.81	5.83	5.20	7.39	7.73	8.32

CAL YR 1988 MEAN 9.43 MAX 10.16 MIN 8.29
WTR YR 1989 MEAN 7.99 MAX 9.92 MIN 5.20

254100080402400 L-67 EXTENDED CANAL WEST NEAR FLORIDA CITY, FL

LOCATION.--Lat 25°41'00", long 80°40'24", between sec.24, T.55 S., R.36 E., and sec.6, T.55 S., R.37 E., in-between hiatus of unsurveyed area, Dade County, Hydrologic Unit 03090202, 5.8 mi south of Highway 41 on the L-67 extension levee and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1983 to present year (gage heights).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily gage heights.

EXTREMES FOR PERIOD OF RECORD .--Maximum gage height, 8.24 ft Oct. 6, 1988, minimum, 3.77 ft June 6-7, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.24 ft Oct. 6; minimum, 3.77 ft June 6-7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.10	7.36	6.86	6.49	6.22	5.76	4.93	5.26	3.99			
2	8.19	7.33	6.85	6.47	6.21	5.75	4.90	5.28	3.95			
3	8.18	7.32	6.83	6.46	6.19	5.74	4.86	5.25	3.90			
4	8.16	7.40	6.81	6.42	6.18	5.72	4.82	5.20	3.87			
5	8.15	7.38	6.80	6.42	6.16	5.70	4.93	5.14	3.82			
6	8.15	7.35	6.79	6.40	6.15	5.68	5.61	5.14	3.79			
7	8.18	7.33	6.79	6.39	6.15	5.68	5.65	5.23	3.78			
8	8.11	7.31	6.78	6.39	6.13	5.72	5.63	5.19	---			
9	8.06	7.26	6.77	6.37	6.11	5.72	5.60	5.12	---			
10	8.02	7.23	6.76	6.37	6.09	5.68	5.55	5.06	---			
11	7.98	7.21	6.75	6.40	6.08	5.63	5.51	4.99	---			
12	7.94	7.19	6.74	6.39	6.06	5.60	5.48	4.92	---			
13	7.92	7.16	6.72	6.38	6.04	5.57	5.46	4.86	---			
14	7.87	7.14	6.71	6.36	6.01	5.54	5.43	4.80	---			
15	7.83	7.12	6.70	6.35	5.99	5.51	5.39	4.76	---			
16	7.79	7.09	6.69	6.34	5.97	5.49	5.42	4.74	---			
17	7.76	7.08	6.67	6.33	5.96	5.46	5.64	4.69	---			
18	7.73	7.06	6.64	6.33	5.94	5.43	5.65	4.65	---			
19	7.70	7.03	6.63	6.31	5.93	5.40	5.64	4.67	---			
20	7.66	7.01	6.62	6.30	5.91	5.37	5.60	4.63	---			
21	7.63	6.99	6.61	6.29	5.90	5.33	5.57	4.57	---			
22	7.61	6.98	6.61	6.33	5.89	5.29	5.56	4.50	---			
23	7.57	6.97	6.60	6.34	5.87	5.27	5.54	4.45	---			
24	7.54	6.97	6.59	6.33	5.82	5.24	5.49	4.39	---			
25	7.51	6.95	6.58	6.31	5.81	5.20	5.45	4.34	---			
26	7.49	6.93	6.56	6.30	5.80	5.15	5.40	4.30	---			
27	7.46	6.92	6.54	6.30	5.79	5.11	5.35	4.26	---			
28	7.44	6.92	6.53	6.28	5.77	5.06	5.30	4.20	---			
29	7.42	6.91	6.53	6.27	---	5.02	5.28	4.14	---			
30	7.40	6.88	6.51	6.25	---	4.98	5.26	4.09	---			
31	7.37	---	6.50	6.24	---	4.94	---	4.04	---			
MEAN	7.80	7.13	6.68	6.35	6.00	5.44	5.40	4.74	---			
MAX	8.19	7.40	6.86	6.49	6.22	5.76	5.65	5.28	---			
MIN	7.37	6.88	6.50	6.24	5.77	4.94	4.82	4.04	---			

CAL YR 1988 MEAN 7.00 MAX 8.19 MIN 6.00

254100080402200 NORTHEAST SHARK RIVER SLOUGH EAST OF L 67 EXTENSION NEAR RICHMOND HEIGHTS, FL

LOCATION.--Lat 25°41'00", long 80°40'22", in NW¼ sec.6, T.55 S., R.37 E., Dade County, Hydrologic Unit 03090202, 5.8 mi south of U.S. Highway 41 on the L-67 extension levee and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1984 to current year (gage heights).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 7.67 ft Aug. 20, 21, 1988; minimum, 4.86 ft May 9, 10, 11, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.38 ft Oct. 6-10; minimum, 4.92 ft June 21, 23, 24.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.27	7.01	6.89	6.54	6.24	5.81	5.12	5.54	4.98	6.07	6.14	6.28
2	7.34	7.01	6.87	6.53	6.21	5.79	5.12	5.55	4.98	6.15	6.08	6.34
3	7.34	7.00	6.85	6.52	6.20	5.77	5.10	5.50	4.97	6.19	6.06	6.48
4	7.34	7.14	6.85	6.51	6.19	5.75	5.08	5.42	4.97	6.29	6.10	6.39
5	7.34	7.13	6.83	6.49	6.18	5.73	5.34	5.35	4.96	6.50	6.05	6.32
6	7.35	7.13	6.81	6.47	6.16	5.71	5.87	5.35	4.96	6.31	5.99	6.25
7	7.38	7.12	6.82	6.47	6.15	5.73	5.78	5.42	4.96	6.20	5.94	6.20
8	7.38	7.10	6.80	6.44	6.13	5.78	5.71	5.33	4.96	6.13	5.94	6.16
9	7.38	7.10	6.79	6.43	6.12	5.80	5.64	5.27	4.96	6.06	5.97	6.13
10	7.37	7.08	6.79	6.43	6.09	5.77	5.59	5.22	4.95	6.00	5.98	6.09
11	7.34	7.08	6.77	6.48	6.07	5.72	5.55	5.16	4.95	5.95	6.21	6.05
12	7.32	7.06	6.76	6.48	6.05	5.67	5.52	5.12	4.95	5.92	6.26	6.02
13	7.29	7.05	6.75	6.46	6.04	5.64	5.53	5.10	4.95	5.96	6.31	5.99
14	7.26	7.04	6.73	6.43	6.02	5.61	5.48	5.09	4.94	6.13	6.40	5.96
15	7.24	7.03	6.72	6.41	6.01	5.58	5.43	5.09	4.94	6.09	6.28	5.96
16	7.22	7.02	6.71	6.39	5.99	5.57	5.60	5.08	4.94	6.14	6.20	5.97
17	7.20	7.01	6.69	6.37	5.97	5.55	5.98	5.06	4.93	6.09	6.13	5.95
18	7.17	7.00	6.68	6.36	5.96	5.52	5.96	5.07	4.93	6.05	6.09	5.96
19	7.15	6.99	6.66	6.35	5.95	5.50	5.94	5.09	4.93	6.15	6.11	5.99
20	7.14	6.98	6.66	6.34	5.93	5.45	5.88	5.06	4.93	6.20	6.19	5.97
21	7.12	6.97	6.65	6.33	5.92	5.42	5.84	5.05	4.92	6.32	6.18	5.93
22	7.10	6.96	6.68	6.38	5.91	5.39	5.79	5.03	4.93	6.29	6.20	5.90
23	7.09	6.98	6.67	6.38	5.90	5.36	5.75	5.03	4.93	6.20	6.15	6.26
24	7.08	6.96	6.65	6.35	5.87	5.34	5.71	5.02	4.93	6.20	6.09	6.40
25	7.07	6.95	6.63	6.33	5.85	5.29	5.66	5.02	4.93	6.17	6.04	6.30
26	7.05	6.94	6.62	6.31	5.84	5.26	5.61	5.02	4.93	6.11	6.10	6.21
27	7.04	6.94	6.60	6.30	5.83	5.23	5.57	5.01	5.05	6.09	6.35	6.14
28	7.03	6.96	6.59	6.29	5.82	5.20	5.54	5.00	6.09	6.16	6.60	6.08
29	7.03	6.92	6.58	6.28	---	5.17	5.55	5.00	6.38	6.37	6.60	6.03
30	7.02	6.91	6.56	6.26	---	5.15	5.52	4.99	6.15	6.29	6.44	6.01
31	7.02	---	6.55	6.25	---	5.13	---	4.99	---	6.20	6.35	---
MEAN	7.21	7.02	6.72	6.40	6.02	5.53	5.59	5.16	5.08	6.16	6.18	6.12
MAX	7.38	7.14	6.89	6.54	6.24	5.81	5.98	5.55	6.38	6.50	6.60	6.48
MIN	7.02	6.91	6.55	6.25	5.82	5.13	5.08	4.99	4.92	5.92	5.94	5.90

CAL YR 1988 MEAN 6.89 MAX 7.65 MIN 5.99
WTR YR 1989 MEAN 6.10 MAX 7.38 MIN 4.92

02289060 TAMIAMI CANAL OUTLETS, LEVEE 30 TO LEVEE 67A, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°33'40", in SE¼ sec.6, T.54 S., R.38 E., Dade County, Hydrologic Unit 03090202, on south bank, 50 ft west of bridge 53 on U.S. Highway 41, and 22.8 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to September 1963 (monthly discharge), October 1963 to current year. Prior to October 1963, published as Tamiami Canal at bridge 45, near Miami (auxiliary). Records prior to October 1962 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1942, nonrecording gage at datum 0.80 ft lower; Aug. 27, 1942 to Feb. 21, 1952, nonrecording gage at present datum; and Feb. 21, 1952 to Aug. 7, 1969 water-stage recorder at same datum all at site 4 mi to the west.

REMARKS.--No estimated daily stage and discharge. Records poor. Figures of daily discharge consist of seepage through levee 29 from Conservation Area 3B and discharges from S-333 distributed along L-29 from Conservation Area 3A as represented by flow through all the outlets of Tamiami Canal from levee 30 to levee 67A. Prior to October 1963, daily discharge for this portion of the Canal was published as part of the total daily discharge of station, Tamiami Canal outlets, Miami to Monroe (station 02289000).

AVERAGE DISCHARGE.--49 years, 215 ft^3/s, 155,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,100 ft^3/s Sept. 17, 1985; maximum gage height, 9.76 ft Nov. 1, 1960; maximum daily reverse flow, 7.0 ft^3/s estimated, May 11, 12, 1964; minimum gage height, 1.66 ft May 13, 14, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 538 ft^3/s Oct. 2; maximum gage height, 7.67 ft Oct. 1; no flow for many days; minimum gage height, 3.90 ft June 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	256	148	34	13	8.6	.00	.00	.00	.00	.00	11
2	538	210	138	32	12	19	.09	.00	.00	.00	.00	5.3
3	508	220	132	31	12	18	2.9	.00	.00	.00	.00	3.2
4	380	283	128	30	12	15	.80	.00	.00	.00	.00	2.7
5	214	295	124	28	12	13	3.4	.00	.00	.00	.00	2.4
6	148	309	111	28	11	12	20	.00	.00	.00	.00	2.5
7	78	318	94	27	11	13	16	.00	.00	.00	.00	3.6
8	73	274	90	26	11	8.7	8.7	.00	.00	.00	.00	3.7
9	69	224	89	25	10	2.1	3.8	.00	.00	.00	.00	3.8
10	65	223	87	25	9.6	.05	.97	.00	.00	.00	.00	3.6
11	61	230	86	26	9.7	.00	.07	.00	.00	.00	.00	3.2
12	57	233	85	25	9.2	.00	.00	.00	.00	.00	.00	2.4
13	53	238	83	25	8.8	.00	.00	.00	.00	.00	.40	1.3
14	50	244	77	24	8.3	.00	.00	.00	.00	.00	1.5	1.2
15	46	238	75	24	8.0	.00	.00	.00	.00	.00	3.3	1.2
16	43	208	73	23	7.9	.00	.00	.00	.00	.00	9.3	1.1
17	62	197	70	23	8.0	.00	.00	.00	.00	.00	8.7	.97
18	82	193	66	23	8.2	.00	.00	.00	.00	.81	8.8	2.1
19	84	189	63	22	8.2	.00	.00	.00	.00	5.1	9.4	9.7
20	85	190	58	21	8.1	.00	.00	.00	.00	3.4	13	9.0
21	85	192	52	20	8.4	.00	.00	.00	.00	4.5	11	8.5
22	152	182	50	23	9.3	.00	.00	.00	.00	2.6	11	12
23	244	195	49	22	9.5	.00	.00	.00	.00	.50	9.3	32
24	264	177	47	20	8.2	.00	.00	.00	.00	.00	8.1	31
25	271	169	45	19	7.4	.00	.00	.00	.00	.00	6.7	31
26	271	167	43	18	6.9	.00	.00	.00	.00	1.6	7.8	43
27	272	168	42	18	6.6	.00	.00	.00	.00	6.4	11	77
28	269	171	39	16	6.7	.00	.00	.00	.00	3.3	11	77
29	271	160	38	16	---	.00	.00	.00	.00	.94	11	78
30	271	154	36	14	---	.00	.00	.00	.00	.06	9.7	77
31	272	---	35	14	---	.00	---	.00	---	.00	11	---
TOTAL	5827	6505	2353	722	261.0	109.45	56.73	.00	.00	29.21	162.00	540.47
MEAN	188	217	75.9	23.3	9.32	3.53	1.89	.000	.000	.94	5.23	18.0
MAX	538	318	148	34	13	19	20	.00	.00	6.4	13	78
MIN	43	154	35	14	6.6	.00	.00	.00	.00	.00	.00	.97
AC-FT	11560	12900	4670	1430	518	217	113	.00	.00	58	321	1070

CAL YR 1988	TOTAL	71032.90	MEAN	194	MAX 675	MIN 9.1	AC-FT	140900
WTR YR 1989	TOTAL	16565.86	MEAN	45.4	MAX 538	MIN .00	AC-FT	32860

02289060 TAMIAMI CANAL OUTLETS, LEVEE 30 TO LEVEE 67A, NEAR MIAMI, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.59	7.49	7.05	6.65	6.47	6.02	5.62	5.49	4.48	5.42	5.81	6.24
2	7.61	7.45	7.04	6.65	6.45	6.08	5.58	5.52	4.42	5.40	5.76	6.26
3	7.60	7.45	7.03	6.64	6.44	6.06	5.51	5.47	4.37	5.38	5.73	6.28
4	7.56	7.48	7.02	6.63	6.44	6.03	5.46	5.39	4.32	5.47	5.78	6.27
5	7.50	7.48	7.01	6.62	6.42	6.00	5.54	5.32	4.27	5.76	5.74	6.26
6	7.44	7.47	6.99	6.62	6.41	5.99	5.96	5.28	4.24	5.76	5.68	6.29
7	7.36	7.46	6.95	6.61	6.40	6.00	5.96	5.28	4.49	5.70	5.63	6.38
8	7.33	7.41	6.94	6.60	6.38	6.03	5.92	5.21	4.61	5.64	5.62	6.39
9	7.30	7.36	6.92	6.59	6.36	6.03	5.87	5.15	4.58	5.58	5.60	6.39
10	7.28	7.35	6.91	6.59	6.34	6.00	5.82	5.10	4.51	5.51	5.59	6.38
11	7.25	7.33	6.90	6.59	6.34	5.96	5.78	5.04	4.43	5.45	5.61	6.37
12	7.22	7.32	6.90	6.58	6.32	5.93	5.76	4.98	4.35	5.41	5.75	6.37
13	7.20	7.31	6.89	6.57	6.30	5.90	5.75	4.92	4.28	5.41	5.88	6.41
14	7.17	7.30	6.85	6.56	6.28	5.87	5.70	4.89	4.21	5.39	5.92	6.41
15	7.14	7.28	6.84	6.56	6.27	5.84	5.65	4.86	4.14	5.34	5.92	6.41
16	7.12	7.24	6.84	6.55	6.25	5.81	5.62	4.85	4.08	5.32	6.01	6.40
17	7.20	7.22	6.82	6.55	6.23	5.79	5.67	4.82	4.03	5.33	5.99	6.40
18	7.30	7.20	6.80	6.55	6.22	5.77	5.67	4.93	3.98	5.39	5.99	6.41
19	7.31	7.19	6.79	6.54	6.20	5.75	5.64	5.24	3.94	5.53	6.00	6.45
20	7.32	7.18	6.77	6.54	6.18	5.71	5.59	5.20	3.91	5.53	6.14	6.44
21	7.32	7.18	6.73	6.53	6.17	5.68	5.57	5.11	3.95	5.62	6.12	6.43
22	7.40	7.16	6.72	6.56	6.17	5.64	5.56	5.01	4.08	5.62	6.11	6.43
23	7.50	7.17	6.72	6.56	6.15	5.62	5.77	4.93	4.10	5.56	6.09	6.48
24	7.51	7.14	6.71	6.54	6.11	5.63	5.74	4.88	4.08	5.52	6.07	6.48
25	7.52	7.12	6.70	6.53	6.08	5.59	5.68	4.84	4.13	5.53	6.04	6.48
26	7.52	7.11	6.69	6.52	6.05	5.55	5.61	4.84	4.47	5.68	6.06	6.50
27	7.52	7.11	6.69	6.51	6.03	5.51	5.54	4.78	4.67	5.99	6.14	6.57
28	7.52	7.11	6.68	6.50	6.01	5.46	5.47	4.72	5.04	5.97	6.16	6.57
29	7.52	7.08	6.67	6.50	---	5.44	5.41	4.65	5.43	5.93	6.17	6.57
30	7.52	7.07	6.67	6.48	---	5.41	5.43	4.59	5.45	5.89	6.18	6.57
31	7.52	---	6.66	6.48	---	5.46	---	4.54	---	5.86	6.22	---
MEAN	7.39	7.27	6.84	6.56	6.27	5.79	5.66	5.03	4.37	5.58	5.92	6.41
MAX	7.61	7.49	7.05	6.65	6.47	6.08	5.96	5.52	5.45	5.99	6.22	6.57
MIN	7.12	7.07	6.66	6.48	6.01	5.41	5.41	4.54	3.91	5.32	5.59	6.24

CAL YR 1988 MEAN 7.12 MAX 7.65 MIN 6.45
WTR YR 1989 MEAN 6.09 MAX 7.61 MIN 3.91

02289500 TAMIAMI CANAL NEAR CORAL GABLES, FL

LOCATION.--Lat 25°45'43", long 80°19'42", in SW¼ sec.3, T.54 S., R.40 E., Dade County, Hydrologic Unit 03090202, on upstream side of footbridge, 25 ft from south bank, 0.5 mi upstream from Coral Gables, 2.5 mi west of Coral Gables, 3.5 mi downstream from Snapper Creek Canal, and 6.2 mi usptream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1940 to June 1943, October 1959 to current year. Records of gage height prior to October 1960 are available in files of the Geological Survey.

REVISED RECORDS.--WDR FL-87-2A: 1986.

GAGE.--Water-stage recorder and electromagnetic velocity meter recorder. Datum of gage is National Geodetic Vertical Datum of 1929. January 1940 to June 1943, nonrecording gage at same site at datum 0.22 ft lower.

REMARKS --Estimated daily discharge: Dec. 21, June 29, July 6, July 13 to Aug. 2, Aug. 18 to Sept. 1, Sept. 21-30. Records poor. The flow is slightly affected by tide and is regulated by control structure at Dade- Broward Levee, 7.5 mi upstream and at salinity-control structure S-25, 1.2 mi downstream. The canal is blocked by Levee 30, 10.5 mi upstream. Flow is diverted to and from Snapper Creek Canal, 3.5 mi upstream. Discharge computed from continuous velocity record obtained from recording electromagnetic velocity meter.

COOPERATION.--Records of salinity-control structure operation provided by South Florida Water Management District.

AVERAGE DISCHARGE.--28 years (water years 1960-83, 1985-88), 139 ft^3/s 100,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 675 ft^3/s Aug. 22, 1981; maximum gage height, 6.38 ft Aug. 18, 1981; no flow many days during 1985, 1989 water years; maximum daily reverse flow, 28 ft^3/s May 4, 5, 6, 1975; minimum gage height, 1.08 ft May 31, 1962.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Maximum stage known, 8.49 ft Oct. 12, 1947, present datum, from non recording gage reading.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 350 ft^3/s June 29 (estimated); maximum gage height, 4.40 ft June 28; no flow for many days; minimum gage height, 1.60 ft May 14, 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	30	23	86	3.2	13	21	.12	11	---	46	65
2	257	32	26	71	3.5	.16	27	.00	14	---	48	71
3	258	61	25	64	3.7	1.9	35	.00	16	---	30	84
4	260	98	26	67	2.3	6.4	32	.00	19	---	26	59
5	259	41	26	76	5.4	6.0	31	.00	20	---	24	88
6	244	34	23	81	6.8	2.6	30	.00	---	130	40	41
7	183	34	26	88	7.4	16	34	.00	---	98	49	22
8	91	34	28	96	11	36	29	.00	---	5.4	54	29
9	124	64	30	54	9.4	32	24	.18	---	21	38	22
10	134	55	29	13	6.6	46	23	.04	---	38	48	17
11	139	38	29	12	10	70	22	.00	---	40	64	19
12	96	36	30	16	19	73	21	.00	---	25	68	10
13	63	35	29	11	23	66	17	.00	---	95	121	6.0
14	75	36	27	12	21	64	14	.04	---	57	165	5.3
15	181	40	29	9.0	23	67	6.0	4.6	---	40	165	2.8
16	105	35	32	8.8	20	74	5.0	12	---	38	164	2.2
17	96	24	29	6.7	22	69	2.7	13	---	51	155	3.5
18	133	13	30	5.0	21	63	1.2	15	---	61	79	17
19	156	13	28	2.2	21	57	1.5	16	---	72	58	37
20	89	15	30	1.9	21	55	1.7	17	---	63	46	47
21	79	21	32	4.4	22	58	3.3	15	---	49	62	50
22	62	24	---	7.0	8.5	52	1.2	13	---	54	64	31
23	49	24	---	.00	8.3	52	.00	10	---	43	41	27
24	46	32	---	.00	11	50	.00	9.2	---	39	23	39
25	39	30	---	.00	11	45	.00	9.3	---	39	29	65
26	31	30	---	.13	6.9	37	.00	9.9	---	40	23	46
27	43	22	---	.38	7.4	43	.00	9.7	---	42	21	35
28	38	20	---	.68	6.5	45	.00	11	---	41	37	25
29	34	27	---	3.4	---	45	.00	13	350	40	42	22
30	34	22	---	3.4	---	37	.00	11	115	38	60	17
31	32	---	85	2.8	---	30	---	9.2	---	38	68	---
TOTAL	3610	1020	---	802.79	341.9	1312.06	382.60	198.28	---	---	1958	1004.8
MEAN	116	34.0	---	25.9	12.2	42.3	12.8	6.40	---	---	63.2	33.5
MAX	260	98	---	96	23	74	35	17	---	---	165	88
MIN	31	13	---	.00	2.3	.16	.00	.00	---	---	21	2.2
AC-FT	7160	2020	---	1590	678	2600	759	393	---	---	3880	1990

02289500 TAMIAMI CANAL NEAR CORAL GABLES, FL

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.17	2.65	2.46	2.35	2.12	2.36	2.09	1.96	1.84	3.13	2.82	2.98
2	3.07	2.64	2.44	2.34	2.12	2.34	2.05	1.96	1.82	2.93	2.74	2.97
3	2.92	2.78	2.41	2.33	2.11	2.37	2.03	1.94	1.79	2.82	2.73	2.95
4	2.81	2.66	2.40	2.32	2.10	2.36	2.00	1.89	1.76	2.83	2.79	2.96
5	2.76	2.78	2.39	2.30	2.09	2.34	2.02	1.83	1.72	2.75	2.78	2.80
6	2.72	2.84	2.38	2.29	2.09	2.33	2.03	1.81	1.80	2.56	2.76	2.93
7	2.77	2.83	2.37	2.28	2.08	2.32	2.00	1.79	2.24	2.49	2.72	2.97
8	2.98	2.81	2.36	2.26	2.07	2.33	1.98	1.76	2.30	2.87	2.68	2.92
9	2.92	2.67	2.36	2.24	2.06	2.33	1.95	1.73	2.30	2.91	2.71	2.90
10	2.88	2.56	2.36	2.25	2.05	2.32	1.92	1.71	2.27	2.93	2.75	2.91
11	2.70	2.66	2.36	2.25	2.04	2.32	1.90	1.69	2.23	2.89	2.83	2.91
12	2.83	2.67	2.36	2.19	2.03	2.31	1.88	1.67	2.19	2.80	2.93	2.92
13	2.90	2.67	2.35	2.20	2.02	2.30	1.85	1.64	2.15	2.74	2.92	2.90
14	2.92	2.66	2.34	2.19	2.02	2.28	1.83	1.61	2.12	2.83	2.91	2.89
15	2.80	2.69	2.34	2.18	2.00	2.26	1.80	1.68	2.08	2.84	2.94	2.92
16	2.86	2.69	2.35	2.18	1.99	2.23	1.79	1.88	2.03	2.84	2.91	2.90
17	2.88	2.68	2.34	2.16	1.98	2.19	1.90	1.93	2.00	2.89	2.93	2.90
18	2.83	2.67	2.33	2.12	1.97	2.19	1.94	2.01	1.96	2.86	3.03	3.00
19	2.73	2.65	2.32	2.12	1.97	2.18	1.92	2.02	1.93	2.89	3.17	3.10
20	2.80	2.63	2.32	2.12	1.96	2.16	1.90	2.00	1.90	2.89	3.61	3.03
21	2.81	2.61	2.35	2.12	1.95	2.14	1.91	1.97	1.88	2.94	3.36	3.01
22	2.80	2.60	2.37	2.16	2.02	2.11	1.90	1.94	1.96	2.89	3.24	2.99
23	2.79	2.58	2.39	2.17	2.08	2.09	2.01	1.92	2.00	2.89	3.10	2.99
24	2.78	2.57	2.38	2.16	2.07	2.08	2.16	1.91	2.47	2.86	3.05	2.93
25	2.77	2.55	2.38	2.17	2.12	2.07	2.10	1.91	2.74	2.89	3.05	2.91
26	2.76	2.54	2.40	2.16	2.17	2.04	2.06	1.90	3.12	2.89	3.02	2.95
27	2.71	2.52	2.40	2.15	2.21	2.02	2.03	1.88	3.42	2.88	2.98	2.96
28	2.71	2.51	2.38	2.15	2.27	1.99	1.99	1.86	3.92	2.88	2.99	2.95
29	2.70	2.49	2.38	2.14	---	1.96	1.96	1.83	3.89	2.86	2.98	2.92
30	2.68	2.47	2.37	2.14	---	1.93	1.93	1.83	3.35	2.86	2.97	2.92
31	2.66	---	2.36	2.12	---	1.98	---	1.86	---	2.86	3.01	---
MEAN	2.82	2.64	2.37	2.20	2.06	2.20	1.98	1.85	2.31	2.85	2.95	2.94
MAX	3.17	2.84	2.46	2.35	2.27	2.37	2.16	2.02	3.92	3.13	3.61	3.10
MIN	2.66	2.47	2.32	2.12	1.95	1.93	1.79	1.61	1.72	2.49	2.68	2.80

CAL YR 1988 MEAN 2.75 MAX 3.60 MIN 2.24
WTR YR 1989 MEAN 2.43 MAX 3.92 MIN 1.61

254315080331500 NORTHEAST SHARK RIVER SLOUGH NO. 2 NEAR COOPERTOWN, FL

LOCATION.--Lat 25°43'15", long 80°33'15", in SW¼ sec.20, T.54 S., R.38 E., Dade County, Hydrologic Unit 03090202, 2.7 mi south of Coopertown in Northeast Shark River Slough.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1976 to September 1980, October 1982 to current year (gage heights). Published as "Northeast Shark Valley Slough No. 2 near Coopertown" October 1976 to September 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 7.55 ft Aug. 20, 1988; minimum, 3.41 ft estimated Apr. 23, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.23 ft Oct. 7; minimum, 4.75 ft June 18-25.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.10	6.92	6.72	6.38	5.89	5.23	4.82	5.07	4.77	5.24	5.29	6.01
2	7.20	6.93	6.71	6.36	5.87	5.23	4.81	5.03	4.77	5.19	5.22	6.02
3	7.20	6.95	6.69	6.35	5.85	5.21	4.81	4.92	4.77	5.15	5.34	6.09
4	7.19	6.99	6.68	6.34	5.82	5.19	4.80	4.85	4.76	5.27	5.59	6.06
5	7.17	7.00	6.67	6.32	5.80	5.17	5.02	4.83	4.76	5.40	5.46	6.04
6	7.17	7.01	6.66	6.31	5.77	5.16	5.52	4.85	4.81	5.35	5.35	6.06
7	7.22	7.01	6.65	6.29	5.74	5.22	5.51	4.85	5.11	5.28	5.26	6.11
8	7.20	7.00	6.64	6.28	5.72	5.31	5.46	4.83	4.84	5.23	5.17	6.07
9	7.18	6.99	6.63	6.26	5.70	5.31	5.41	4.82	4.78	5.15	5.12	6.06
10	7.15	6.97	6.62	6.25	5.67	5.28	5.36	4.81	4.78	5.08	5.10	6.06
11	7.13	6.96	6.61	6.24	5.65	5.22	5.31	4.81	4.77	5.02	5.12	6.02
12	7.10	6.94	6.60	6.23	5.62	5.18	5.26	4.80	4.77	5.06	5.23	5.98
13	7.08	6.93	6.59	6.21	5.60	5.14	5.20	4.80	4.77	5.14	5.59	5.93
14	7.05	6.92	6.57	6.19	5.58	5.12	5.13	4.80	4.76	5.12	5.65	5.88
15	7.03	6.91	6.56	6.18	5.55	5.09	5.06	4.79	4.76	5.08	5.74	5.82
16	7.00	6.90	6.55	6.16	5.52	5.06	5.07	4.79	4.76	5.15	5.92	5.76
17	6.98	6.89	6.54	6.14	5.50	5.05	5.15	4.79	4.76	5.19	5.88	5.76
18	6.96	6.87	6.52	6.12	5.47	5.03	5.13	4.81	4.75	5.31	5.87	5.91
19	6.94	6.86	6.51	6.10	5.45	5.00	5.10	4.86	4.75	5.36	5.90	5.95
20	6.94	6.84	6.50	6.08	5.42	4.96	5.04	4.82	4.75	5.36	6.01	5.88
21	6.93	6.83	6.49	6.07	5.41	4.93	5.11	4.81	4.75	5.42	6.00	5.81
22	6.92	6.82	6.48	6.12	5.40	4.89	5.05	4.80	4.75	5.36	5.99	5.78
23	6.91	6.82	6.48	6.10	5.38	4.94	5.11	4.80	4.75	5.28	5.97	5.84
24	6.91	6.81	6.48	6.08	5.34	4.95	5.06	4.79	4.75	5.36	5.95	5.88
25	6.90	6.80	6.47	6.06	5.31	4.89	4.99	4.79	4.75	5.41	5.92	5.83
26	6.90	6.79	6.45	6.04	5.28	4.85	4.92	4.79	4.76	5.46	5.93	5.79
27	6.91	6.78	6.44	6.02	5.26	4.84	4.87	4.79	4.76	5.56	5.98	5.75
28	6.91	6.77	6.43	6.00	5.24	4.83	4.84	4.78	5.01	5.47	5.95	5.70
29	6.91	6.75	6.42	5.97	---	4.82	4.83	4.78	5.27	5.40	5.92	5.64
30	6.91	6.74	6.40	5.94	---	4.81	5.00	4.78	5.27	5.36	5.93	5.58
31	6.92	---	6.39	5.92	---	4.81	---	4.77	---	5.33	6.00	---
MEAN	7.03	6.89	6.55	6.16	5.56	5.06	5.09	4.83	4.82	5.28	5.66	5.90
MAX	7.22	7.01	6.72	6.38	5.89	5.31	5.52	5.07	5.27	5.56	6.01	6.11
MIN	6.90	6.74	6.39	5.92	5.24	4.81	4.80	4.77	4.75	5.02	5.10	5.58

CAL YR 1988 MEAN 6.72 MAX 7.53 MIN 5.75
WTR YR 1989 MEAN 5.74 MAX 7.22 MIN 4.75

254130080380500 NORTHEAST SHARK RIVER SLOUGH NO. 1 NEAR COOPERTOWN, FL

LOCATION.--Lat 25°41'30", long 80°38'05" in NW¼ sec.4, T.54 S., R.31 E., Dade County, Hydrologic Unit 03090202, 0.7 mi west of southeast corner of Blue Shanty Canal, 0.8 mi south of east-west section of Shanty Canal, and 4.7 mi southwest of Coopertown.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1976 to September 1980, July 1982 to present year (gage heights). Prior to October 1977, published as "Northeast Shark Valley Slough No. 1 near Coopertown."

REVISED RECORD.--WDR FL-79-2A: 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1988 gage heights published were at datum 0.48 lower. Records have been revised to correct datum in the daily values files of the Geological Survey.

REMARKS.--No estimated daily gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.14 ft Aug. 20, 1988; minimum, 4.99 ft June 17, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.01 ft Oct. 6; minimum, 4.99 ft June 17.

REVISIONS.--The maximum gage height for the period of record has been revised due to revised datum of gage. Figures of revised gage heights due to datum change October 1976 to September 1988 are available in the files of the Geological Survey.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.66	7.41	7.31	6.98	6.75	6.36	5.44	6.10	5.03	5.55	6.48	6.67
2	7.79	7.41	7.29	6.97	6.74	6.35	5.40	6.06	5.03	5.64	6.46	6.68
3	7.77	7.42	7.27	6.97	6.73	6.32	5.35	5.99	5.02	5.64	6.43	6.72
4	7.76	7.50	7.26	6.96	6.72	6.30	5.32	5.93	5.02	5.73	6.41	6.70
5	7.74	7.51	7.25	6.94	6.70	6.28	5.48	5.87	5.02	5.91	6.38	6.68
6	7.82	7.51	7.23	6.93	6.69	6.26	6.66	5.84	5.02	5.85	6.35	6.65
7	7.94	7.51	7.23	6.92	6.68	6.28	6.60	5.80	5.02	5.86	6.32	6.63
8	7.87	7.50	7.22	6.91	6.67	6.32	6.54	5.74	5.02	5.80	6.29	6.62
9	7.81	7.50	7.21	6.90	6.66	6.29	6.49	5.69	5.02	5.74	6.28	6.61
10	7.78	7.49	7.20	6.89	6.64	6.24	6.43	5.63	5.01	5.70	6.27	6.60
11	7.74	7.49	7.19	6.89	6.63	6.19	6.38	5.58	5.01	5.67	6.30	6.58
12	7.73	7.47	7.18	6.88	6.61	6.15	6.35	5.52	5.01	5.63	6.31	6.56
13	7.70	7.46	7.17	6.87	6.60	6.11	6.32	5.45	5.01	5.80	6.36	6.54
14	7.65	7.45	7.15	6.87	6.59	6.07	6.28	5.40	5.01	6.21	6.47	6.52
15	7.62	7.44	7.14	6.86	6.57	6.04	6.23	5.36	5.01	6.14	6.47	6.53
16	7.60	7.43	7.13	6.85	6.56	6.00	6.23	5.31	5.00	6.10	6.51	6.51
17	7.58	7.42	7.12	6.84	6.55	5.97	6.37	5.26	5.00	6.12	6.48	6.52
18	7.56	7.41	7.10	6.83	6.53	5.93	6.34	5.33	5.01	6.21	6.48	6.52
19	7.54	7.40	7.09	6.82	6.52	5.89	6.39	5.59	5.01	6.35	6.46	6.52
20	7.53	7.39	7.08	6.81	6.51	5.85	6.34	5.50	5.01	6.35	6.53	6.50
21	7.51	7.38	7.07	6.81	6.49	5.81	6.31	5.41	5.01	6.41	6.56	6.48
22	7.50	7.37	7.07	6.83	6.48	5.77	6.29	5.33	5.01	6.44	6.61	6.46
23	7.48	7.40	7.07	6.82	6.47	5.74	6.36	5.26	5.01	6.43	6.63	6.48
24	7.47	7.39	7.06	6.81	6.44	5.71	6.31	5.19	5.01	6.49	6.62	6.50
25	7.45	7.37	7.05	6.81	6.42	5.67	6.26	5.13	5.01	6.49	6.60	6.51
26	7.44	7.36	7.04	6.80	6.40	5.63	6.21	5.09	5.01	6.48	6.60	6.52
27	7.44	7.35	7.03	6.79	6.38	5.59	6.16	5.06	5.02	6.48	6.63	6.52
28	7.43	7.35	7.02	6.78	6.37	5.55	6.11	5.05	5.28	6.47	6.70	6.50
29	7.42	7.33	7.01	6.77	---	5.50	6.06	5.04	5.51	6.49	6.72	6.48
30	7.42	7.32	7.00	6.76	---	5.46	6.10	5.04	5.48	6.49	6.69	6.46
31	7.41	---	6.99	6.75	---	5.42	---	5.03	---	6.49	6.68	---
MEAN	7.62	7.42	7.14	6.86	6.58	5.97	6.17	5.47	5.05	6.10	6.49	6.56
MAX	7.94	7.51	7.31	6.98	6.75	6.36	6.66	6.10	5.51	6.49	6.72	6.72
MIN	7.41	7.32	6.99	6.75	6.37	5.42	5.32	5.03	5.00	5.55	6.27	6.46

CAL YR 1988 MEAN 7.31 MAX 8.09 MIN 6.56
WTR YR 1989 MEAN 6.45 MAX 7.94 MIN 5.00

253828080391100 NORTHEAST SHARK RIVER SLOUGH NO. 4, NORTH OF GROSSMAN, FL

LOCATION.--Lat 25°38'28", long 80°39'11", in NW¼ sec.4, T.54 S., R. Government Lot 6 E., Dade County, Hydrologic Unit 03090202, approximately 2.0 mi northeast of the extreme southern end of the L-67 extension levee and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1985 to current year (gage heights).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 1985 gage heights were published at datum 0.42 lower. Records have been revised to correct datum in the daily values files of the Geological Survey.

REMARKS.--No estimated daily gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 7.87 ft Aug. 20, 1988; minimum, 5.44 ft Apr., May during the 1989 water year when well was dry.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.63 ft Oct. 7; minimum, 5.44 ft in Apr. and May when the well was dry.

REVISIONS.--The maximum gage height for the period of record has been revised due to revised datum of gage. Figures of revised gage heights due to datum change July, 1985 to September, 1988 are available in files of the Geological Survey.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.41	7.13	6.98	6.67	6.43	5.45	---	---	---	---	---	---
2	7.53	7.12	6.96	6.66	6.42	5.44	---	---	---	---	---	---
3	7.52	7.12	6.94	6.65	6.40	---	---	---	---	---	---	---
4	7.50	7.20	6.93	6.64	6.39	---	5.44	---	---	---	---	---
5	7.48	7.19	6.92	6.62	6.37	---	5.60	---	---	---	---	---
6	7.52	7.20	6.91	6.61	6.35	---	5.81	---	---	---	---	---
7	7.62	7.18	6.90	6.60	6.33	---	5.68	---	---	---	---	---
8	7.59	7.17	6.89	6.59	6.31	---	5.57	---	---	---	---	---
9	7.56	7.16	6.88	6.58	6.29	---	5.48	---	---	---	---	---
10	7.53	7.15	6.87	6.61	6.26	---	5.45	---	---	---	---	---
11	7.50	7.14	6.86	6.66	6.23	---	5.44	---	---	---	---	---
12	7.47	7.13	6.85	6.63	6.20	---	---	---	---	---	---	---
13	7.45	7.12	6.85	6.61	6.17	---	---	---	---	---	---	---
14	7.42	7.11	6.83	6.60	6.13	---	---	---	---	---	---	---
15	7.40	7.10	6.82	6.58	6.09	---	---	---	---	---	---	---
16	7.38	7.09	6.81	6.57	6.05	---	---	---	---	---	---	---
17	7.36	7.08	6.80	6.55	6.00	---	---	---	---	---	---	---
18	7.34	7.07	6.78	6.54	5.96	---	---	---	---	---	---	---
19	7.33	7.06	6.77	6.52	5.91	---	---	---	---	---	---	---
20	7.31	7.04	6.76	6.51	5.86	---	---	---	---	---	---	---
21	7.29	7.03	6.76	6.52	5.81	---	---	---	---	---	---	---
22	7.27	7.03	6.78	6.58	5.77	---	---	---	---	---	---	---
23	7.26	7.06	6.77	6.56	5.72	---	---	---	---	---	---	---
24	7.24	7.04	6.75	6.54	5.63	---	---	---	---	---	---	---
25	7.22	7.03	6.74	6.53	5.56	---	---	---	---	---	---	---
26	7.21	7.01	6.73	6.52	5.50	---	---	---	---	---	---	---
27	7.19	7.01	6.72	6.50	5.47	---	---	---	---	---	---	---
28	7.18	7.01	6.71	6.49	5.45	---	---	---	---	---	---	---
29	7.17	7.00	6.70	6.47	---	---	---	---	---	---	---	---
30	7.15	6.98	6.69	6.46	---	---	---	---	---	---	---	---
31	7.14	---	6.68	6.45	---	---	---	---	---	---	---	---
MEAN	7.37	7.09	6.82	6.57	6.04	---	---	---	---	---	---	---
MAX	7.62	7.20	6.98	6.67	6.43	---	---	---	---	---	---	---
MIN	7.14	6.98	6.68	6.45	5.45	---	---	---	---	---	---	---

CAL YR 1988 MEAN 6.96 MAX 7.82 MIN 5.96

253753080393600 NORTHEAST SHARK RIVER SLOUGH NO. 5, SOUTH OF GROSSMAN, FL

LOCATION.--Lat 25°37'53", long 80°39'36", in NW¼ sec.4, T.54 S., R. Government Lot 6 E., Dade County, Hydrologic Unit 03090202, approximately 0.3 mi northeast of the extreme southern end of the L-67 extension levee and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1985 to current year (gage heights).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1988 gage heights were published at datum 0.48 lower. Records have been revised to correct datum in the daily values files of the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 7.95 ft Aug. 27, 1988; minimum, 6.19 ft many days during 1989 water year when well went dry.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.67 ft Oct. 6; minimum, 6.19 ft for many days when well was dry.

REVISIONS.--The maximum gage height for the period of record has been revised due to revised datum of gage. Figures of revised gage heights due to datum change July, 1985 to September 1988 are available in the files of the Geological Survey.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.48	7.18	6.96	6.66	6.41					---	6.42	6.57
2	7.56	7.17	6.94	6.64	6.40					---	6.40	6.55
3	7.58	7.17	6.92	6.64	6.38					---	6.40	6.56
4	7.56	7.25	6.91	6.63	6.37					---	6.44	6.56
5	7.55	7.23	6.90	6.61	6.35					---	6.41	6.54
6	7.57	7.24	6.89	6.60	6.31					---	6.38	6.52
7	7.66	7.22	6.88	6.59	6.29					---	6.36	6.50
8	7.64	7.20	6.87	6.58	6.27					---	6.33	6.48
9	7.62	7.19	6.86	6.57	6.27					---	6.34	6.46
10	7.59	7.17	6.85	6.58	6.24					---	6.35	6.45
11	7.57	7.16	6.84	6.62	6.21					---	6.38	6.43
12	7.54	7.15	6.83	6.62	---					6.20	6.35	6.41
13	7.51	7.13	6.82	6.61	---					6.25	6.38	6.39
14	7.48	7.12	6.81	6.60	---					6.39	6.49	6.38
15	7.46	7.11	6.80	6.58	---					6.36	6.47	6.38
16	7.44	7.10	6.79	6.57	---					6.35	6.49	6.36
17	7.42	7.08	6.78	6.55	---					6.33	6.48	6.35
18	7.41	7.07	6.76	6.55	---					6.31	6.49	6.40
19	7.39	7.05	6.75	6.54	---					6.34	6.54	6.44
20	7.37	7.04	6.74	6.53	---					6.42	6.57	6.42
21	7.35	7.03	6.74	6.53	---					6.52	6.56	6.40
22	7.34	7.02	6.74	6.58	---					6.49	6.59	6.38
23	7.32	7.06	6.74	6.58	---					6.46	6.59	6.40
24	7.30	7.03	6.74	6.56	---					6.44	6.58	6.42
25	7.29	7.02	6.73	6.54	---					6.42	6.55	6.41
26	7.27	7.00	6.72	6.54	---					6.40	6.55	6.39
27	7.25	7.00	6.70	6.52	---					6.40	6.61	6.38
28	7.23	7.01	6.69	6.51	---					6.41	6.62	6.36
29	7.22	6.98	6.68	6.49	---					6.46	6.62	6.34
30	7.21	6.97	6.67	6.46	---					6.45	6.60	6.32
31	7.19	---	6.67	6.43	---					6.44	6.59	---
MEAN	7.43	7.11	6.80	6.57	---					---	6.48	6.43
MAX	7.66	7.25	6.96	6.66	---					---	6.62	6.57
MIN	7.19	6.97	6.67	6.43	---					---	6.33	6.32

CAL YR 1988 MEAN 7.02 MAX 7.87 MIN 6.20

02290710 BLACK CREEK CANAL AT S-21, NEAR GOULDS, FL

LOCATION.--Lat 25°32'34", long 80°19'52", in NE¼ sec.21, T.56 S., R.40 E., Dade County, Hydrologic Unit 03090202, in control house of salinity-control structure S-21, 0.5 mi upstream from mouth, and 3.5 mi east of Goulds.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to October 1969 (gage heights), November 1969 to September 1977, October 1978 to current year. Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Digital upstream, downstream recorders and gate-opening recorders. Datum of gages is National Geodetic Vertical Datum of 1929 (Dade County bench mark). Prior to Aug. 9, 1960, water-stage recorder at site 270 ft upstream in north lateral borrow canal, and Apr. 9, 1960 to July 8, 1968, at site 810 ft upstream in north lateral borrow canal all at same datum.

REMARKS.--Estimated daily discharge: Oct. 10-18, Oct. 22 - Nov. 10, May 11-31, June 28 - July 11 and July 20 - Aug. 25. Records fair, except those for estimated daily discharges, which are poor. Flow is affected by tide and is occasionally reversed. Flow is regulated by the operation of salinity-control structure S-21 and by some upstream pumpage for irrigation. Discharge computed from relation between head, discharges and gate-openings at structure S-21.

COOPERATION.--Supplementary gate-opening record and gage-height record provided by South Florida Water Management District.

AVERAGE DISCHARGE.--18 years (water years 1971-77, 1979-89), 138 ft^3/s, 99,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,340 ft^3/s Aug. 18, 1981; maximum gage height, 6.41 ft Sept. 10, 1960; no flow for many days each year; maximum daily reverse flow, 384 ft^3/s Jan. 23, 1983; minimum gage height, -0.57 ft Apr. 8, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 473 ft^3/s July 4; maximum gage height, 2.50 ft Aug. 20; no flow for many days; minimum gage height, 0.03 ft July 4.

REVISIONS.--Revised figures of discharge for the Water Year 1988, superseding those published in the report for 1988 are given below.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	475	96	.00	.00	85	.00	.00	100	299	211	144	45
2	341	233	17	.00	.00	.00	.00	113	340	214	199	48
3	292	89	.00	.00	.00	.00	.00	118	263	279	254	48
4	188	220	.00	.00	.00	.00	.00	.00	187	292	247	48
5	210	275	.00	.00	.00	.00	.00	65	205	334	164	48
6	184	204	.00	.00	93	.00	.00	.00	347	171	.00	51
7	199	210	.00	.00	.00	.00	.00	.00	219	135	.00	51
8	190	158	44	90	.00	.00	.00	.00	1130	228	.00	48
9	146	166	258	40	.00	.00	.00	.00	1440	141	68	45
10	353	96	173	96	67	.00	.00	.00	1330	181	101	69
11	429	180	112	81	82	71	.00	.00	1060	50	222	61
12	608	67	190	81	.00	.00	.00	.00	997	166	598	110
13	1040	56	.00	81	.00	.00	.00	.00	1300	164	456	83
14	864	93	150	81	.00	.00	.00	99	1350	167	387	69
15	645	62	49	81	.00	.00	.00	48	1420	165	1330	96
16	226	54	55	68	23	.00	.00	109	1270	159	1440	95
17	227	83	.00	73	.00	.00	.00	169	1170	159	1580	.00
18	225	88	88	78	.00	.00	.00	95	1060	80	1630	107
19	214	33	31	120	.00	.00	.00	157	1100	622	1550	119
20	187	57	47	155	.00	.00	.00	112	1160	806	1540	116
21	222	68	90	162	50	.00	.00	113	1120	303	1600	116
22	177	.00	.00	91	.00	78	.00	110	785	159	1570	95
23	142	81	.00	.00	.00	.00	.00	55	360	140	1610	.00
24	204	.00	.00	.00	50	.00	.00	73	257	92	809	.00
25	111	44	41	.00	.00	.00	.00	58	145	135	.00	75
26	113	.00	.00	55	.00	.00	.00	87	145	142	534	.00
27	27	56	117	.00	.00	.00	.00	160	140	230	684	83
28	135	.00	117	.00	.00	.00	.00	145	21	162	642	.00
29	170	57	120	.00	.00	.00	.00	183	131	113	357	.00
30	69	.00	106	.00	---	.00	.00	240	218	164	15	73
31	104	---	36	.00	---	.00	---	250	---	144	105	---
TOTAL	8717	2826.00	1841.00	1433.00	450.00	149.00	.00	2659.00	20969	6508	19836.00	1799.00
MEAN	281	94.2	59.4	46.2	15.5	4.81	.000	85.8	699	210	640	60.0
MAX	1040	275	258	162	93	78	.00	250	1440	806	1630	119
MIN	27	.00	.00	.00	.00	.00	.00	.00	21	50	.00	.00
AC-FT	17290	5610	3650	2840	893	296	.00	5270	41590	12910	39340	3570

CAL YR 1987	TOTAL	26391.20	MEAN	72.3	MAX	1040	MIN	.00	AC-FT 52350
WTR YR 1988	TOTAL	67187.00	MEAN	184	MAX	1630	MIN	.00	AC-FT 133300

02290710 BLACK CREEK CANAL AT S-21, NEAR GOULDS, FL

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	.00	.00	.00	.00	.00	.00	.00	.00	209	26	36
2	181	.00	.00	.00	.00	1.2	.00	.00	.00	91	71	81
3	50	258	.00	.00	.00	.00	.00	.00	.00	151	.00	46
4	247	131	.00	.00	.00	.00	.00	.00	.00	473	.00	61
5	87	150	.00	.00	.00	.00	.00	.00	.00	53	.00	53
6	117	60	.00	4.6	.00	.00	.00	.00	.00	.00	.00	43
7	179	109	.00	.00	.00	.00	.00	.00	.00	105	.00	57
8	183	111	.00	.00	.00	.00	.00	.00	.00	128	.00	21
9	161	63	.00	.00	.00	.00	.00	.00	.00	86	85	23
10	87	.00	.00	.00	.00	.00	.00	.00	.00	.00	50	82
11	159	.00	.00	.00	.00	.00	.00	.00	.00	72	59	.00
12	99	.00	.00	.00	.00	.00	.00	.00	.00	139	79	97
13	110	.00	.00	.00	.00	.00	.00	.00	.00	249	.00	.00
14	86	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	61	.00	.00	.00	.00	1.0	.00	264	.00	58	111	.00
16	58	.00	.00	.00	.00	.00	.00	172	.00	90	58	41
17	57	.00	.00	.00	.00	.00	.00	335	.00	.00	59	59
18	176	.00	.00	.00	.00	.00	.00	246	.00	66	113	60
19	150	.00	.00	.00	.00	.00	.00	199	.00	134	.00	84
20	122	.00	.00	.00	.00	.00	.00	154	.00	51	234	.00
21	46	.00	.00	.00	.00	.00	.00	147	.00	106	.00	96
22	.00	.00	.00	.00	.00	.00	.00	71	.00	109	54	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	42	67	92
24	.00	.00	.00	4.4	.00	.00	.00	73	.00	20	114	.00
25	.00	.00	.00	5.2	.00	.00	.00	230	.00	81	24	.00
26	.00	.00	.00	1.9	.00	.00	.00	194	.00	29	51	71
27	.00	.00	.00	.00	.00	.00	.00	180	.00	29	66	6.8
28	.00	.00	.00	.00	.00	.00	.00	162	147	30	72	97
29	.00	.00	.00	.00	---	.00	.00	89	111	30	84	.00
30	.00	.00	.00	.00	---	.00	.00	.00	160	192	32	.00
31	.00	---	.00	.00	---	.00	---	.00	---	69	83	---
TOTAL	2512.00	882.00	.00	16.10	.00	2.20	.00	2516.00	418.00	2892.00	1592.00	1206.80
MEAN	81.0	29.4	.000	.52	.000	.071	.000	81.2	13.9	93.3	51.4	40.2
MAX	247	258	.00	5.2	.00	1.2	.00	335	160	473	234	97
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	4980	1750	.00	32	.00	4.4	.00	4990	829	5740	3160	2390

CAL YR 1988	TOTAL	57197.00	MEAN	156	MAX	1630	MIN	.00	AC-FT 113500
WTR YR 1989	TOTAL	12037.10	MEAN	33.0	MAX	473	MIN	.00	AC-FT 23880

02290710 BLACK CREEK CANAL AT S-21, NEAR GOULDS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.26	2.38	2.29	2.18	2.28	2.01	1.92	2.03	2.05	2.02	2.32	2.35
2	2.16	2.36	2.28	2.17	2.27	2.00	1.91	2.04	2.05	2.26	2.25	2.16
3	2.29	2.19	2.27	2.17	2.26	1.99	1.88	2.01	2.04	2.25	2.32	2.31
4	2.07	2.19	2.26	2.16	2.25	1.98	1.87	1.99	2.02	1.64	2.39	2.24
5	2.14	2.32	2.24	2.15	2.24	1.97	1.89	1.95	1.99	1.92	2.42	2.29
6	2.28	2.31	2.22	2.13	2.23	1.98	2.00	1.94	1.97	2.32	2.42	2.26
7	2.25	2.08	2.21	2.14	2.23	2.00	1.98	1.91	2.06	2.21	2.41	2.33
8	2.17	2.06	2.21	2.14	2.23	2.05	1.95	1.88	2.10	2.24	2.41	2.31
9	2.14	2.04	2.21	2.14	2.22	2.06	1.92	1.84	2.07	2.23	2.31	2.41
10	2.28	2.24	2.20	2.15	2.21	2.07	1.88	1.81	2.04	2.38	2.29	2.21
11	2.16	2.33	2.19	2.16	2.20	2.06	1.86	1.81	1.99	2.28	2.31	2.39
12	2.22	2.37	2.20	2.15	2.18	2.04	1.84	1.79	1.95	2.08	2.24	2.18
13	2.19	2.39	2.20	2.15	2.17	2.03	1.81	1.76	1.91	1.96	2.12	2.33
14	2.22	2.39	2.18	2.15	2.15	2.01	1.88	1.74	1.87	2.23	2.35	2.39
15	2.32	2.41	2.17	2.15	2.13	1.99	1.96	1.81	1.82	2.33	2.22	2.43
16	2.28	2.42	2.18	2.15	2.12	1.99	1.99	2.13	1.78	2.27	2.17	2.33
17	2.33	2.42	2.18	2.15	2.10	1.99	2.11	2.02	1.78	2.29	2.19	2.33
18	1.92	2.42	2.17	2.14	2.09	1.98	2.14	2.14	1.74	2.29	2.12	2.21
19	1.77	2.40	2.15	2.13	2.08	1.97	2.11	2.22	1.71	2.09	2.14	2.23
20	1.72	2.39	2.15	2.13	2.06	1.94	2.08	2.22	1.67	2.34	2.14	2.37
21	1.88	2.38	2.15	2.15	2.05	1.93	2.18	2.13	1.65	2.25	2.15	2.17
22	2.14	2.37	2.18	2.25	2.06	1.98	2.27	2.13	1.64	2.23	2.07	2.36
23	2.26	2.37	2.20	2.32	2.07	1.98	2.29	2.33	1.64	2.36	2.31	2.26
24	2.31	2.36	2.22	2.31	2.05	1.97	2.26	2.31	1.65	2.27	2.16	2.24
25	2.35	2.35	2.23	2.31	2.03	1.98	2.21	2.25	1.72	2.26	2.29	2.35
26	2.37	2.33	2.23	2.30	2.01	1.97	2.16	2.03	1.99	2.34	2.26	2.25
27	2.36	2.32	2.22	2.30	2.01	1.95	2.13	1.77	2.38	2.39	2.28	2.34
28	2.36	2.32	2.21	2.30	2.01	1.93	2.08	1.63	2.20	2.40	2.27	2.25
29	2.39	2.31	2.21	2.29	---	1.90	2.04	1 63	2.14	2.39	2.23	2.31
30	2.39	2.29	2.20	2.29	---	1.88	2.04	1.92	2.10	2.19	2.37	2.34
31	2.39	---	2.19	2.28	---	1.88	---	2.02	---	2.28	2.26	---
MEAN	2.21	2.32	2.21	2.20	2.14	1.98	2.02	1.97	1.92	2.23	2.26	2.30
MAX	2.39	2.42	2.29	2.32	2.28	2.07	2.29	2.33	2.38	2.40	2.42	2.43
MIN	1.72	2.04	2.15	2.13	2.01	1.88	1.81	1.63	1.64	1.64	2.07	2.16

CAL YR 1988 MEAN 2.19 MAX 2.49 MIN .57
WTR YR 1989 MEAN 2.15 MAX 2.43 MIN 1.63

02290725 MOWRY CANAL NEAR HOMESTEAD, FL

LOCATION.--Lat 25°28'13", long 80°20'47", in NE¼ sec.17, T.57 S., R.40 E., Dade County, Hydrologic Unit 03090202, in control house of salinity-control structure S-20F, 0.5 mi upstream from mouth, and 8 mi east of Homestead.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1954 to March 1970 (gage heights), April 1970 to current year. Discontinued. Records of gage heights prior to October 1962 are available in files of the Geological Survey.

GAGE.--Digital upstream and downstream water-stage recorders, digital gate-opening recorders. Datum of gage heights prior to October 1962 are available in files of the Geological Survey.

REMARKS.--Estimated daily discharge: May 22 - Sept. 8. Records poor. Flow is affected by tide and is occasionally reversed. Flow is regulated by operation of salinity-control structure S-20F and by some upstream pumpage for irrigation. Discharge computed from relation between head, discharges, and gate openings at structure S-20F.

COOPERATION.--Supplementary gage-height and gate-opening records provided by South Florida Water Management District.

AVERAGE DISCHARGE.--17 years (1971-82, 85-89), 202 ft^3/s, 146,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,660 ft^3/s Sept. 27, 1981; maximum gage height, 9.25 ft Sept. 8, 1965; no flow for many days each year; minimum gage height, -1.03 ft May 10, 12, June 26, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 936 ft^3/s Aug. 17 (estimated); maximum gage height, 2.54 ft Oct. 2; no flow for some days; minimum gage height, 0.80 ft Nov. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	209	61	.00	.00	6.9	118	.00	.00	295	33	292
2	737	177	48	38	67	.00	37	.00	.00	192	21	406
3	586	351	26	.00	.00	.00	43	.00	.00	215	72	290
4	517	368	111	.00	.00	.00	81	.00	.00	131	43	264
5	424	369	.00	.00	.00	.00	105	.00	.00	181	146	251
6	409	393	37	.00	.00	.00	76	.00	.00	259	.00	206
7	359	331	122	.00	.00	79	33	.00	.00	421	245	230
8	314	261	.00	.00	.00	131	.00	.00	.00	169	188	82
9	242	277	47	.00	.00	139	.00	.00	.00	114	135	164
10	255	253	57	99	.00	35	.00	.00	.00	33	109	385
11	260	273	36	75	.00	22	.00	.00	.00	37	242	211
12	275	236	60	44	.00	22	.00	.00	.00	39	50	173
13	249	230	50	43	.00	.00	.00	.00	.00	.00	124	121
14	238	149	50	41	.00	.00	.00	.00	.00	220	165	91
15	321	180	83	43	.00	.00	.00	.00	.00	206	520	174
16	330	184	49	46	.00	.00	.00	.00	.00	158	415	173
17	412	192	.00	39	.00	.00	189	38	.00	209	936	247
18	372	160	.00	.00	.00	.00	159	38	.00	254	322	288
19	305	115	.00	.00	.00	.00	76	.00	.00	208	857	298
20	254	197	.00	40	.00	.00	62	.00	.00	136	935	216
21	291	186	42	57	.00	.00	134	.00	.00	117	505	197
22	250	157	92	268	31	.00	105	.00	.00	199	247	161
23	283	97	49	194	.00	.00	247	.10	.00	77	83	159
24	266	20	158	163	.00	.00	166	104	.00	82	101	135
25	240	.00	133	130	.00	.00	111	104	.00	182	95	140
26	261	.00	.00	81	.00	.00	50	.00	.00	145	256	162
27	249	.00	59	87	.00	.00	65	.00	.00	15	232	65
28	225	135	63	65	.00	.00	.00	.00	32	25	255	68
29	195	120	.00	17	---	.00	.00	.00	192	59	174	36
30	236	86	73	47	---	.00	.00	.00	237	59	178	72
31	238	---	64	42	---	.00	---	.00	---	46	230	---
TOTAL	9907	5706.00	1570.00	1659.00	98.00	434.90	1857.00	284.10	461.00	4483.00	7914.00	5757
MEAN	320	190	50.6	53.5	3.50	14.0	61.9	9.16	15.4	145	255	192
MAX	737	393	158	268	67	139	247	104	237	421	936	406
MIN	195	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	36
AC-FT	19650	11320	3110	3290	194	863	3680	564	914	8890	15700	11420

CAL YR 1988 TOTAL 96774.80 MEAN 264 MAX 2840 MIN .00 AC-FT 192000
WTR YR 1989 TOTAL 40131.00 MEAN 110 MAX 936 MIN .00 AC-FT 79600

02290725 MOWRY CANAL NEAR HOMESTEAD, FL

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.11	1.37	1.61	1.69	1.68	1.56	1.60	1.80	1.88	2.02	2.11	2.04
2	2.13	1.42	1.67	1.65	1.60	1.56	1.62	1.84	1.81	2.05	2.13	1.99
3	2.05	1.55	1.64	1.69	1.65	1.55	1.65	1.83	1.75	2.05	2.13	2.01
4	2.05	1.47	1.61	1.70	1.66	1.53	1.62	1.79	1.69	2.05	2.11	2.01
5	2.07	1.39	1.65	1.70	1.66	1.51	1.60	1.75	1.63	2.03	2.08	2.01
6	2.07	1.35	1.65	1.71	1.66	1.57	1.60	1.75	1.58	2.03	2.13	2.04
7	2.13	1.34	1.56	1.71	1.66	1.63	1.61	1.81	1.82	1.99	2.06	2.03
8	2.15	1.32	1.68	1.72	1.65	1.58	1.59	1.78	1.85	2.05	2.02	2.08
9	2.21	1.32	1.64	1.71	1.65	1.58	1.57	1.74	1.77	2.08	2.00	2.07
10	2.19	1.34	1.63	1.67	1.65	1.64	1.54	1.72	1.69	2.13	2.04	1.96
11	2.16	1.31	1.66	1.61	1.65	1.64	1.50	1.69	1.61	2.13	2.01	2.05
12	2.13	1.33	1.63	1.67	1.63	1.63	1.49	1.63	1.53	2.12	1.95	2.04
13	2.09	1.31	1.65	1.62	1.62	1.66	1.47	1.58	1.46	2.15	2.02	2.08
14	2.07	1.40	1.64	1.64	1.61	1.64	1.45	1.54	1.40	2.06	1.97	2.10
15	1.89	1.38	1.60	1.65	1.58	1.62	1.45	1.54	1.33	2.04	1.97	2.04
16	1.83	1.40	1.63	1.64	1.56	1.62	1.47	1.71	1.26	2.08	2.00	2.06
17	1.65	1.37	1.69	1.63	1.55	1.62	1.58	2.10	1.20	1.96	2.00	2.05
18	1.57	1.37	1.69	1.67	1.55	1.61	1.58	2.12	1.15	2.02	1.99	2.05
19	1.59	1.41	1.69	1.67	1.54	1.58	1.63	2.14	1.15	2.05	1.96	2.05
20	1.55	1.27	1.69	1.65	1.54	1.55	1.65	2.11	1.13	2.05	1.99	2.08
21	1.50	1.28	1.66	1.63	1.62	1.52	1.59	2.07	1.19	2.09	1.98	2.06
22	1.45	1.30	1.62	1.54	1.61	1.49	1.63	2.03	1.34	2.06	1.97	2.06
23	1.43	1.37	1.65	1.57	1.64	1.48	1.61	1.99	1.44	2.08	1.95	2.06
24	1.42	1.57	1.60	1.59	1.59	1.49	1.61	1.98	1.52	2.10	2.01	2.06
25	1.44	1.64	1.58	1.59	1.57	1.48	1.63	2.08	1.61	2.07	2.06	2.04
26	1.43	1.66	1.68	1.63	1.55	1.44	1.63	2.14	1.71	2.02	2.03	2.06
27	1.42	1.69	1.65	1.62	1.54	1.40	1.61	2.11	2.07	2.05	2.02	2.10
28	1.41	1.60	1.63	1.65	1.56	1.37	1.66	2.06	2.12	2.10	1.98	2.11
29	1.43	1.61	1.70	1.65	---	1.34	1.63	2.02	1.97	2.11	2.00	2.14
30	1.42	1.60	1.61	1.64	---	1.31	1.69	1.98	2.07	2.10	2.04	2.11
31	1.37	---	1.60	1.63	---	1.44	---	1.93	---	2.08	2.05	---
MEAN	1.79	1.42	1.64	1.65	1.61	1.54	1.59	1.88	1.59	2.06	2.02	2.05
MAX	2.21	1.69	1.70	1.72	1.68	1.66	1.69	2.14	2.12	2.15	2.13	2.14
MIN	1.37	1.27	1.56	1.54	1.54	1.31	1.45	1.54	1.13	1.96	1.95	1.96

CAL YR 1988 MEAN 1.76 MAX 2.21 MIN .74
WTR YR 1989 MEAN 1.74 MAX 2.21 MIN 1.13

02290769 CANAL 111 ABOVE S-18-C, NEAR FLORIDA CITY, FL

LOCATION.--Lat 25°19'49", long 80°31'31", in NW¼ sec.3, T.59 S., R.38 E., Dade County, Hydrologic Unit 03090202, at control structure 18-C, and 8.5 mi south of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORD.--WDR FL-78-2A: 1974-77.

GAGE.--Digital water-stage recorders, electromagnetic velocity meter recorder and dual graphic water-stage and gate opening recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--No estimated daily stage and discharge. Records fair. Flow regulated by S-18-C. Discharge computed from relation between head, and gate openings at S-18-C.

COOPERATION.--Gate-opening recorder record and record of slot operations provided by South Florida Water Management District.

AVERAGE DISCHARGE.--21 years, 149 ft^3/s, 107,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,940 ft^3/s Aug. 16, 1988; maximum gage height, 3.62 ft July 24, 1985; no flow for many days each year; maximum daily reverse flow, 194 ft^3/s Jan. 2, 1988; minimum gage height, -1.53 ft May 14, 1971 (estimated).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,230 ft^3/s Oct. 6; maximum gage height, 3.07 ft Oct. 5; no flow for many days; maximum daily reverse flow, 8.2 ft^3/s Nov. 30; minimum gage height, 0.69 ft June 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	416	.00	.00	.00	.00	.00	.00	.00	.00	241	.00	570
2	1020	.00	.00	.00	.00	.00	.00	.00	.00	256	.00	794
3	954	.00	.00	32	.00	.00	.00	.00	.00	223	.00	784
4	872	.00	.00	48	.00	.00	.00	.00	.00	604	.00	550
5	1150	.00	32	47	.00	.00	.00	.00	.00	796	.00	482
6	1230	.00	50	46	.00	.00	.00	.00	.00	876	.00	368
7	1150	.00	50	46	.00	.00	.00	.00	.00	802	.00	372
8	840	.00	51	46	.00	.00	.00	.00	.00	750	.00	420
9	716	.00	52	46	.00	.00	.00	.00	.00	410	.00	294
10	736	.00	52	47	.00	.00	.00	.00	.00	98	.00	222
11	552	.00	52	50	.00	.00	.00	.00	.00	.00	.00	232
12	352	.00	53	50	.00	.00	.00	.00	.00	.00	.00	222
13	362	.00	89	50	.00	.00	.00	.00	.00	.00	346	244
14	302	.00	262	50	32	.00	.00	.00	.00	.00	502	304
15	404	.00	68	50	50	.00	.00	.00	.00	.00	522	.00
16	444	.00	75	49	48	.00	.00	.00	.00	.00	602	.00
17	246	122	76	49	47	.00	.00	.00	.00	.00	500	.00
18	308	156	74	49	47	.00	.00	.00	.00	.00	422	208
19	218	135	72	48	46	.00	.00	.00	.00	.00	606	306
20	222	127	69	47	44	.00	.00	.00	.00	.00	718	332
21	214	164	69	48	42	.00	.00	.00	.00	232	770	130
22	212	160	71	54	29	.00	.00	.00	.00	430	752	.00
23	212	179	71	58	.00	.00	.00	14	.00	98	634	.00
24	212	173	71	56	50	13	.00	21	.00	.00	472	.00
25	126	159	73	55	.00	36	.00	21	.00	.00	362	.00
26	.00	139	73	19	.00	33	8.0	20	39	.00	368	.00
27	.00	148	24	.00	.00	31	19	20	111	.00	354	.00
28	.00	121	.00	.00	.00	28	19	6.8	144	.00	316	.00
29	.00	67	.00	.00	---	27	19	.00	56	.00	232	5.8
30	.00	-8.2	.00	.00	---	9.1	23	.00	17	.00	222	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	376	---
TOTAL	13470.00	1841.80	1629.00	1140.00	435.00	177.10	88.00	102.80	367.00	5816.00	9076.00	6839.80
MEAN	435	61.4	52.5	36.8	15.5	5.71	2.93	3.32	12.2	188	293	228
MAX	1230	179	262	58	50	36	23	21	144	876	770	794
MIN	.00	-8.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	26720	3650	3230	2260	863	351	175	204	728	11540	18000	13570

CAL YR 1988 TOTAL 131760.80 MEAN 360 MAX 2940 MIN -194 AC-FT 261300
WTR YR 1989 TOTAL 40982.50 MEAN 112 MAX 1230 MIN -8.2 AC-FT 81290

02290769 CANAL 111 ABOVE S-16-C, NEAR FLORIDA CITY, FL

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.68	2.37	2.09	2.06	1.82	1.56	2.30	1.78	1.67	2.36	2.43	2.36
2	3.00	2.36	2.05	2.06	1.80	1.54	2.23	2.00	1.58	2.13	2.38	2.50
3	2.95	2.38	2.04	2.02	1.77	1.54	2.18	2.01	1.48	2.33	2.33	2.51
4	2.93	2.38	2.05	1.99	1.74	1.54	2.17	1.96	1.40	2.15	2.32	2.39
5	3.07	2.37	2.04	1.98	1.71	1.53	2.12	1.89	1.32	2.32	2.31	2.28
6	3.06	2.53	2.05	1.96	1.67	1.59	2.08	1.94	1.25	2.44	2.28	2.24
7	2.89	2.54	2.06	1.95	1.65	1.71	2.02	2.16	1.34	2.40	2.25	2.22
8	2.73	2.52	2.06	1.95	1.63	1.85	1.95	2.08	1.36	2.38	2.34	2.20
9	2.66	2.49	2.06	1.94	1.62	1.86	1.88	1.95	1.29	2.20	2.41	2.13
10	2.62	2.46	2.06	1.99	1.63	1.85	1.80	1.87	1.23	2.15	2.38	2.07
11	2.61	2.44	2.05	2.05	1.66	1.82	1.76	1.79	1.18	2.29	2.40	2.05
12	2.66	2.43	2.06	2.05	1.68	1.77	1.79	1.68	1.13	2.29	2.45	2.02
13	2.66	2.41	2.06	2.05	1.68	1.72	1.70	1.58	1.08	2.27	2.40	2.00
14	2.57	2.39	2.01	2.05	1.67	1.67	1.62	1.48	1.03	2.25	2.15	1.98
15	2.60	2.36	2.01	2.04	1.61	1.64	1.54	1.41	.96	2.23	2.20	2.14
16	2.60	2.34	1.99	2.03	1.58	1.64	1.52	1.39	.90	2.28	2.31	2.24
17	2.46	2.23	1.99	2.01	1.57	1.63	1.67	1.38	.85	2.50	2.25	2.34
18	2.49	2.10	1.97	1.99	1.55	1.62	1.69	1.65	.81	2.54	2.19	2.40
19	2.39	2.06	1.95	1.97	1.53	1.60	1.65	2.03	.76	2.55	2.35	2.21
20	2.37	2.03	1.93	1.96	1.52	1.55	1.61	1.97	.73	2.51	2.43	2.27
21	2.35	2.02	1.92	1.96	1.49	1.50	1.61	1.90	.83	2.41	2.44	2.24
22	2.28	2.01	1.93	2.11	1.54	1.47	1.58	1.83	.94	2.06	2.45	2.41
23	2.25	2.01	1.93	2.19	1.68	1.43	1.55	1.74	1.13	2.21	2.40	2.45
24	2.22	2.01	1.93	2.17	1.64	1.40	1.52	1.79	1.14	2.32	2.30	2.45
25	2.25	2.00	1.94	2.15	1.56	1.33	1.48	2.10	1.11	2.34	2.20	2.44
26	2.38	2.00	1.94	2.11	1.54	1.29	1.48	2.11	1.11	2.43	2.17	2.45
27	2.40	1.99	1.97	2.03	1.54	1.25	1.52	2.04	1.57	2.52	2.15	2.44
28	2.41	2.00	2.03	1.98	1.54	1.21	1.50	1.98	1.87	2.50	2.12	2.42
29	2.41	1.98	2.05	1.94	---	1.19	1.47	1.91	1.88	2.50	2.06	2.39
30	2.39	1.97	2.05	1.90	---	1.18	1.63	1.84	2.20	2.49	2.05	2.37
31	2.38	---	2.06	1.86	---	1.72	---	1.79	---	2.47	2.19	---
MEAN	2.57	2.24	2.01	2.02	1.63	1.55	1.75	1.84	1.24	2.35	2.29	2.29
MAX	3.07	2.54	2.09	2.19	1.82	1.86	2.30	2.16	2.20	2.55	2.45	2.51
MIN	2.22	1.97	1.92	1.86	1.49	1.18	1.47	1.38	.73	2.06	2.05	1.98

CAL YR 1988 MEAN 2.30 MAX 3.44 MIN 1.65
WTR YR 1989 MEAN 1.99 MAX 3.07 MIN .73

252523080352500 LEVEE 31 W CANAL AT S-332, NEAR FLORIDA CITY, FL

LOCATION.--Lat 25°25'23", long 80°35'25", in SE¼ sec.35, T.57 S., R.37 E., Dade County, Hydrologic Unit 03090202, at control structure 332.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Digital water-stage recorders. Graphic dual stage recorder (South Florida Water Management). Datum of gage is National Geodetic Vertical Datum of 1929. Downstream stage recorder discontinued May 9, 1988.

REMARKS.--No estimated daily discharges. Estimated daily stage: Oct. 1-18, Oct. 25 - Nov. 10, Nov. 16 - Dec. 8, Dec. 14 - Jan. 5. Records fair. Flow regulated by structure 332. Discharge computed from relation between pump RPM and discharge.

COOPERATION.--Graphic upstream and downstream stage record, pump operation logs and culvert operation provided by South Florida Water Management District.

AVERAGE DISCHARGE.--6 years, 46.8 ft^3/s, 33,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 166 ft^3/s, Nov. 10, 11, 14, 17, 19, 20, 24, 26, 27, 1984, and June 27 - July 2, 1989; maximum gage height, 5.78 ft Aug. 16, 1988; no flow for many days each year; minimum gage height, 1.65 ft May 9, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 166 ft^3/s, June 27 - July 2; maximum gage height, 4.97 ft Oct. 1 (estimated); no flow Apr. 1-2 and June 18-21; minimum gage height, 2.04 ft June 20, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	97	35	14	11	7.2	.00	4.6	9.1	166	120	79
2	95	70	14	14	9.1	4.6	.00	4.6	51	166	120	95
3	95	70	14	14	9.1	4.6	2.7	7.2	50	137	120	95
4	116	70	14	14	9.1	4.6	4.6	9.1	50	120	120	95
5	127	70	14	14	9.1	4.6	4.6	9.1	50	120	120	95
6	127	70	14	14	9.1	4.6	4.6	9.1	50	120	120	95
7	127	70	14	14	9.1	4.6	4.6	9.1	91	120	73	95
8	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
9	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
10	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
11	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
12	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
13	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
14	127	70	14	14	9.1	4.6	4.6	9.1	120	120	45	95
15	127	70	14	14	9.1	4.6	4.6	9.1	101	120	45	95
16	127	70	14	14	9.1	4.6	4.6	9.1	70	120	45	95
17	127	70	14	14	9.1	4.6	4.6	9.1	23	120	45	95
18	127	70	14	14	9.1	4.6	4.6	9.1	.00	120	45	95
19	127	70	14	14	9.1	4.6	4.6	9.1	.00	120	45	95
20	127	70	14	14	9.1	4.6	4.6	9.1	.00	120	45	95
21	127	70	14	14	9.1	4.6	4.6	9.1	.00	120	45	95
22	127	70	14	14	9.1	4.6	4.6	9.1	4.0	120	45	95
23	127	70	14	14	9.1	4.6	4.6	9.1	85	120	45	95
24	127	70	14	14	9.1	4.6	4.6	9.1	152	120	45	95
25	127	70	14	14	9.1	4.6	4.6	9.1	152	120	45	95
26	127	70	14	14	9.1	4.6	4.6	9.1	159	120	45	95
27	127	70	14	14	9.1	4.6	4.6	9.1	166	120	45	95
28	127	70	14	14	9.1	4.6	4.6	9.1	166	120	45	95
29	127	70	14	14	---	4.6	4.6	9.1	166	120	45	95
30	127	70	14	14	---	4.6	4.6	9.1	166	120	45	95
31	127	---	14	14	---	4.4	---	9.1	---	120	45	---
TOTAL	3830	2127	455	434	256.7	145.0	126.90	271.2	2601.10	3829	1873	2834
MEAN	124	70.9	14.7	14.0	9.17	4.68	4.23	8.75	86.7	124	60.4	94.5
MAX	127	97	35	14	11	7.2	4.6	9.1	166	166	120	95
MIN	95	70	14	14	9.1	4.4	.00	4.6	.00	120	45	79
AC-FT	7600	4220	902	861	509	288	252	538	5160	7590	3720	5620

CAL YR 1988 TOTAL 19054.90 MEAN 52.1 MAX 127 MIN .00 AC-FT 37800
WTR YR 1989 TOTAL 18782.90 MEAN 51.5 MAX 166 MIN .00 AC-FT 37260

252523080352500 LEVEE 31 W CANAL AT S-332, NEAR FLORIDA CITY, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.68	3.87	3.43	3.41	3.22	2.81	2.87	2.91	2.73	4.12	4.14	4.58
2	4.55	3.82	3.54	3.38	3.22	2.89	2.91	2.98	2.93	4.45	4.08	4.64
3	4.42	3.82	3.54	3.35	3.21	2.90	2.89	3.00	2.90	4.37	4.04	4.59
4	4.64	3.82	3.57	3.31	3.21	2.89	2.89	2.97	2.87	4.34	4.06	4.43
5	4.57	3.77	3.56	3.28	3.19	2.90	2.88	2.92	2.83	3.90	4.02	4.37
6	4.38	3.77	3.50	3.28	3.18	2.94	2.95	2.89	2.78	3.50	3.97	4.36
7	4.23	3.74	3.49	3.27	3.14	3.04	2.96	2.98	2.98	3.45	4.07	4.18
8	4.26	3.71	3.50	3.28	3.13	3.16	2.94	2.95	3.02	3.58	4.22	4.23
9	4.29	3.68	3.50	3.26	3.15	3.16	2.91	2.95	3.03	3.63	4.21	4.39
10	4.26	3.65	3.50	3.33	3.16	3.15	2.87	2.93	2.99	3.84	4.28	4.35
11	4.30	3.63	3.48	3.47	3.14	3.13	2.84	2.90	2.94	3.87	4.43	4.30
12	4.27	3.62	3.45	3.46	3.15	3.07	2.83	2.85	2.93	3.84	4.45	4.23
13	4.22	3.60	3.44	3.43	3.14	3.03	2.80	2.79	2.91	3.83	4.45	4.18
14	4.27	3.59	3.40	3.43	3.11	2.98	2.77	2.75	2.80	4.01	4.37	4.12
15	4.30	3.63	3.39	3.42	3.09	2.95	2.73	2.70	2.77	4.00	4.41	4.13
16	4.22	3.63	3.40	3.39	3.06	2.93	2.81	2.68	2.72	4.03	4.40	4.15
17	4.33	3.53	3.39	3.34	3.04	2.93	3.11	2.72	2.70	4.24	4.34	4.17
18	4.26	3.51	3.36	3.32	3.02	2.92	3.09	2.84	2.66	4.23	4.31	4.40
19	4.27	3.48	3.31	3.29	3.00	2.90	3.08	2.93	2.41	4.23	4.56	4.47
20	4.21	3.45	3.29	3.27	2.97	2.85	3.04	2.94	2.13	4.24	4.70	4.43
21	4.16	3.43	3.32	3.28	2.93	2.81	3.04	2.91	2.30	4.42	4.67	4.36
22	4.28	3.39	3.35	3.55	2.94	2.77	3.13	2.83	2.45	4.29	4.64	4.30
23	4.34	3.46	3.37	3.66	2.98	2.74	3.11	2.66	2.31	4.30	4.49	4.31
24	4.22	3.52	3.43	3.55	2.95	2.71	3.09	2.72	2.13	4.26	4.38	4.33
25	4.18	3.47	3.46	3.47	2.88	2.72	3.07	2.75	2.14	4.27	4.33	4.27
26	4.06	3.44	3.45	3.40	2.82	2.72	3.02	2.76	2.38	4.23	4.26	4.25
27	4.01	3.42	3.43	3.36	2.82	2.69	2.93	2.74	2.69	4.24	4.21	4.25
28	3.90	3.38	3.42	3.34	2.80	2.65	2.86	2.71	3.08	4.17	4.30	4.16
29	3.83	3.32	3.41	3.30	---	2.61	2.79	2.66	3.37	4.15	4.40	4.09
30	3.77	3.33	3.40	3.26	---	2.57	2.84	2.63	3.68	4.26	4.43	4.04
31	3.81	---	3.41	3.23	---	2.65	---	2.61	---	4.22	4.59	---
MEAN	4.24	3.58	3.44	3.37	3.06	2.88	2.94	2.82	2.75	4.08	4.33	4.30
MAX	4.68	3.87	3.57	3.66	3.22	3.16	3.13	3.00	3.68	4.45	4.70	4.64
MIN	3.77	3.32	3.29	3.23	2.80	2.57	2.73	2.61	2.13	3.45	3.97	4.04

CAL YR 1988 MEAN 3.82 MAX 5.73 MIN 2.74
WTR YR 1989 MEAN 3.49 MAX 4.70 MIN 2.13

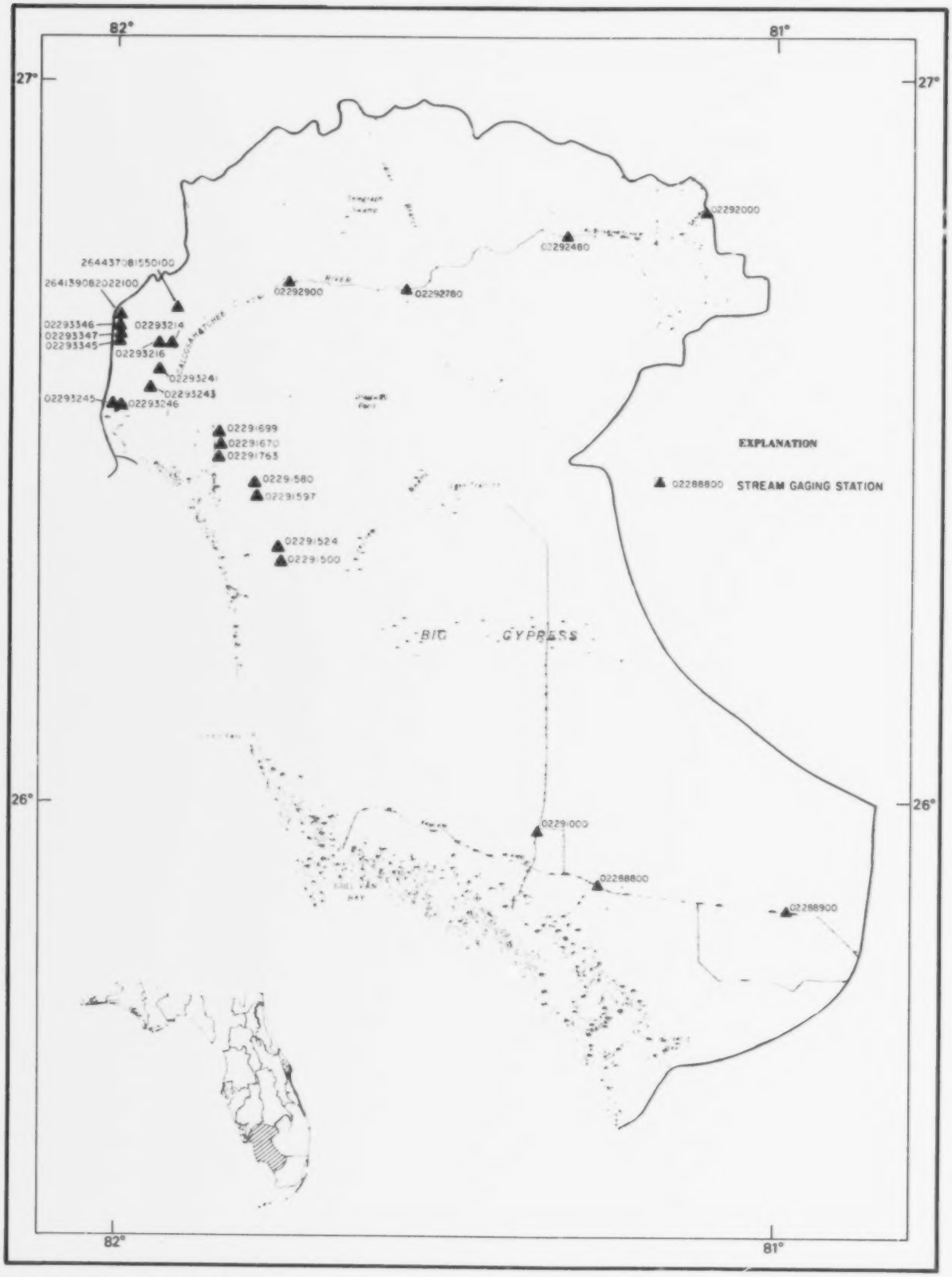


FIGURE 9. Location of gaging stations in the Big Cypress Swamp and southwestern coastal area; the Caloosahatchee River; and Charlotte Harbor and the coastal area

02291000 BARRON RIVER CANAL NEAR EVERGLADES, FL

LOCATION.--Lat 25°57'28" , long 81°21'19", in NW¼ sec.7, T.52 S., R.30 E., Collier County, Hydrologic Unit 03090204, on right bank 40 ft upstream from control structure, 0.7 mi north of Copeland, 7 mi north of town of Everglades, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July to December 1951 (discharge measurements only), January 1952 to current year. Records prior to January 1952 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (State Department of Transportation bench mark). Prior to Jan. 24, 1952, nonrecording gage.

REMARKS.--No estimated daily stage and discharge. Records poor. Flow regulated by operation of control structure at, above, and below station, and is occasionally affected by tide. Overbank flow not included in discharge figures.

AVERAGE DISCHARGE.--36 years (water years 1952-87, 89), 99 ft^3/s, 71,730 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 292 ft^3/s Sept. 25, 1962; maximum gage height, 6.57 ft Sept. 4, 5, 1983; no flow many days; minimum gage height, 0.21 ft May 18, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 1947 reached a stage of about 7 ft, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 160 ft^3/s Oct. 4, gage height, 4.98 ft; maximum gage height, 5.65 ft Sept. 3-5; no flow for many days; minimum gage height, 1.57 ft June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	5.5	4.7	.00	.00	.00	.00	.00	.00	.00	.23	4.4
2	152	2.3	3.4	.00	.00	.00	.00	.00	.00	.00	.09	6.1
3	147	4.9	2.4	.00	.00	.00	.00	.00	.00	.00	.00	6.7
4	153	16	1.9	.00	.00	.00	.00	.00	.00	.00	.00	7.2
5	73	17	.90	.00	.00	.00	.00	.00	.00	.00	.00	7.0
6	9.2	16	.18	.00	.00	.00	.00	.00	.00	.00	.00	7.0
7	8.7	15	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.8
8	8.0	13	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.6
9	7.3	12	.00	.00	.00	.00	.00	.00	.00	.00	.36	6.6
10	6.8	11	.00	.00	.00	.00	.00	.00	.00	.00	.06	6.0
11	6.3	9.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.4
12	6.4	8.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.8
13	6.3	7.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.2
14	6.1	6.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.6
15	5.9	5.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.4
16	5.6	5.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.4
17	5.4	4.3	.00	.00	.00	.00	.00	.00	.00	.00	.63	5.2
18	5.6	3.6	.00	.00	.00	.00	.00	.00	.00	.00	1.9	5.4
19	6.0	2.8	.00	.00	.00	.00	.00	.00	.00	.00	1.5	6.0
20	6.0	2.0	.00	.00	.00	.00	.00	.00	.00	.00	1.4	5.3
21	6.0	1.6	1.7	.00	.00	.00	.00	.00	.00	.10	1.1	4.5
22	5.9	2.2	8.2	.00	.00	.00	.00	.00	.00	.07	1.3	4.5
23	5.8	4.6	7.2	.00	.00	.00	.00	.00	.00	.02	1.8	6.7
24	5.7	3.8	6.1	.00	.00	.00	.00	.00	.00	.00	2.8	5.5
25	5.8	2.2	5.0	.00	.00	.00	.00	.00	.00	.00	2.3	4.6
26	6.1	.96	3.9	.00	.00	.00	.00	.00	.00	.00	2.2	4.1
27	5.8	.35	2.8	.00	.00	.00	.00	.00	.00	.00	2.7	3.7
28	5.5	5.6	1.8	.00	.00	.00	.00	.00	.00	.00	4.0	3.4
29	5.2	5.4	.87	.00	---	.00	.00	.00	.00	.00	4.4	3.2
30	5.0	4.1	.16	.00	---	.00	.00	.00	.00	.00	4.5	3.2
31	5.1	---	.00	.00	---	.00	---	.00	---	.20	4.1	---
TOTAL	839.5	199.61	51.21	.00	.00	.00	.00	.00	.00	.39	37.37	157.5
MEAN	27.1	6.65	1.65	.000	.000	.000	.000	.000	.000	.013	1.21	5.25
MAX	153	17	8.2	.00	.00	.00	.00	.00	.00	.20	4.5	7.2
MIN	5.0	.35	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.2
AC-FT	1670	396	102	.00	.00	.00	.00	.00	.00	.8	74	312

WTR YR 1989 TOTAL 1285.58 MEAN 3.52 MAX 153 MIN .00 AC-FT 2550

BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291000 BARRON RIVER CANAL NEAR EVERGLADES, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.84	4.15	4.39	4.06	3.52	2.91	2.52	2.54	1.95	3.63	5.29	5.52
2	4.81	4.14	4.32	4.03	3.50	2.92	2.48	2.65	1.92	3.87	5.29	5.60
3	4.68	4.36	4.28	4.00	3.47	2.88	2.45	2.70	1.91	4.19	5.27	5.63
4	4.84	4.95	4.25	3.97	3.45	2.86	2.43	2.70	1.89	4.98	5.26	5.65
5	4.99	4.99	4.20	3.92	3.42	2.83	2.39	2.68	1.85	5.10	5.24	5.64
6	5.09	4.96	4.17	3.88	3.40	2.81	2.38	2.65	1.82	5.06	5.22	5.64
7	5.06	4.88	4.15	3.85	3.38	2.93	2.34	2.61	1.80	5.06	5.19	5.63
8	5.03	4.80	4.12	3.82	3.35	3.12	2.32	2.56	1.77	4.98	5.24	5.62
9	5.00	4.74	4.08	3.80	3.34	3.13	2.29	2.51	1.75	4.88	5.28	5.62
10	4.97	4.69	4.05	3.78	3.31	3.12	2.26	2.47	1.73	4.80	5.29	5.59
11	4.94	4.63	4.04	3.78	3.28	3.08	2.23	2.43	1.74	4.85	5.25	5.56
12	4.91	4.58	4.11	3.76	3.26	3.03	2.21	2.38	1.73	4.79	5.22	5.54
13	4.87	4.53	4.08	3.73	3.23	2.97	2.18	2.33	1.71	5.11	5.22	5.51
14	4.82	4.48	4.03	3.71	3.21	2.93	2.20	2.29	1.67	5.04	5.22	5.48
15	4.78	4.45	4.01	3.69	3.18	2.89	2.40	2.24	1.65	4.96	5.20	5.51
16	4.73	4.40	3.99	3.66	3.15	2.86	2.41	2.21	1.64	4.91	5.20	5.56
17	4.68	4.37	3.97	3.63	3.13	2.87	2.39	2.16	1.62	4.90	5.26	5.55
18	4.66	4.34	3.94	3.62	3.11	2.90	2.37	2.18	1.61	4.85	5.39	5.56
19	4.64	4.30	3.92	3.66	3.14	2.88	2.35	2.47	1.65	4.99	5.37	5.59
20	4.60	4.26	3.90	3.62	3.09	2.83	2.36	2.45	1.84	4.95	5.37	5.56
21	4.57	4.24	4.05	3.63	3.05	2.79	2.34	2.39	1.93	5.09	5.35	5.52
22	4.53	4.27	4.55	3.89	3.03	2.76	2.32	2.33	1.99	5.27	5.36	5.52
23	4.49	4.38	4.49	3.89	3.01	2.74	2.29	2.28	2.04	5.28	5.39	5.63
24	4.44	4.35	4.44	3.83	2.98	2.72	2.25	2.22	2.26	5.27	5.43	5.57
25	4.41	4.27	4.38	3.78	2.96	2.70	2.20	2.17	2.47	5.23	5.41	5.53
26	4.39	4.21	4.33	3.73	2.94	2.67	2.17	2.14	2.58	5.19	5.41	5.50
27	4.34	4.18	4.28	3.68	2.92	2.64	2.13	2.10	2.73	5.19	5.43	5.48
28	4.29	4.43	4.23	3.63	2.89	2.61	2.11	2.06	2.89	5.25	5.49	5.47
29	4.24	4.42	4.18	3.60	---	2.59	2.10	2.03	3.11	5.24	5.52	5.46
30	4.20	4.36	4.14	3.56	---	2.56	2.40	2.01	3.24	5.23	5.52	5.45
31	4.16	---	4.10	3.54	---	2.53	---	1.98	---	5.25	5.50	---
MEAN	4.68	4.47	4.17	3.77	3.20	2.84	2.31	2.35	2.02	4.95	5.33	5.56
MAX	5.09	4.99	4.55	4.06	3.52	3.13	2.52	2.70	3.24	5.28	5.52	5.65
MIN	4.16	4.14	3.90	3.54	2.89	2.53	2.10	1.98	1.61	3.63	5.19	5.45

WTR YR 1989 MEAN 3.81 MAX 5.65 MIN 1.61

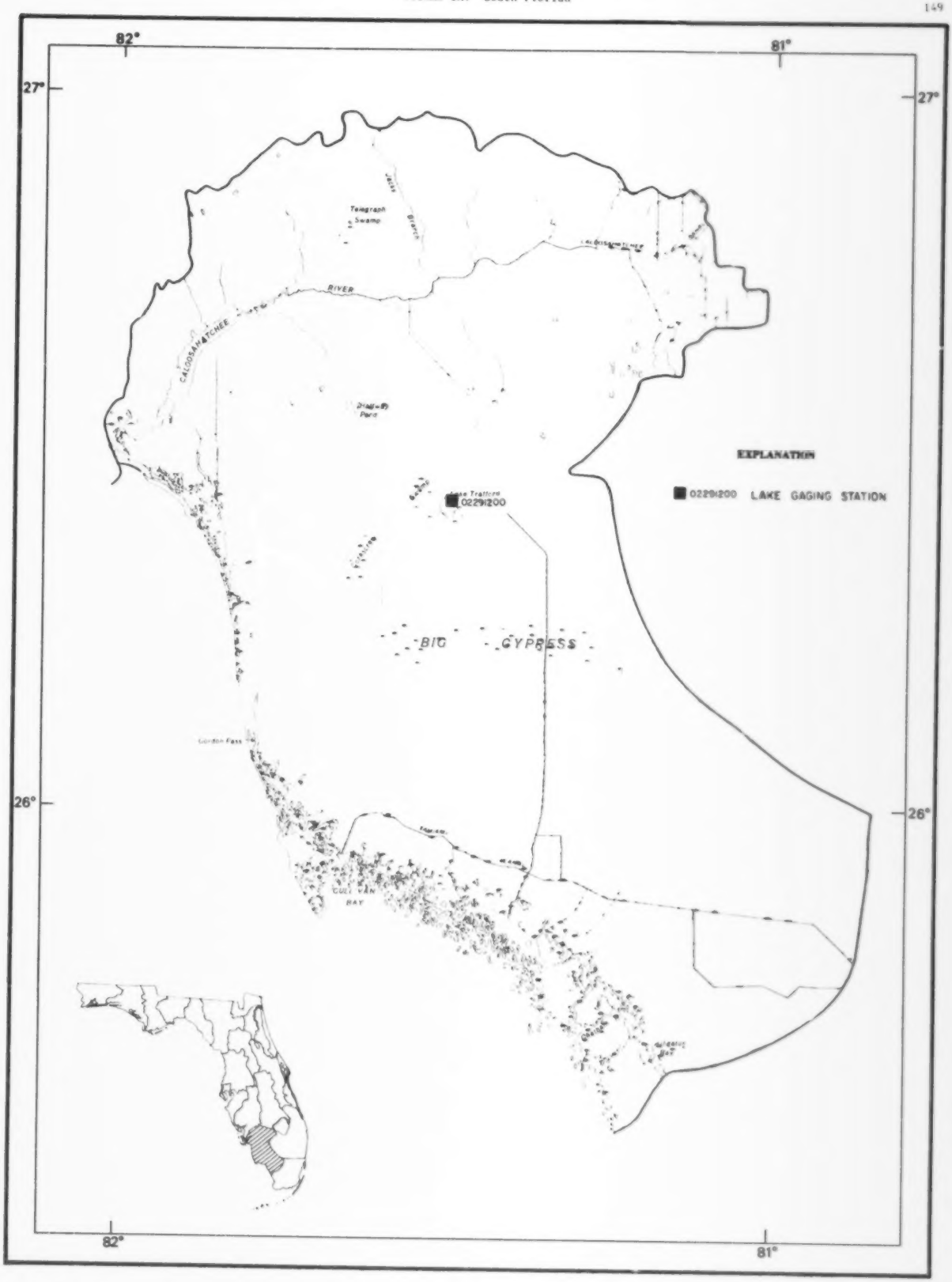


FIGURE 10. Location of the lake gaging station in the Big Cypress Swamp and southeastern coastal area; and the Caloosahatchee River

02291200 LAKE TRAFFORD NEAR IMMOKALEE, FL

LOCATION.--Lat 26°26'08", long 81°29'25", in NW¼ sec.35, T.46 S., R.28 E., Collier County, Hydrologic Unit 03090204, at county boat ramp dock, on north side of lake and 4.2 mi west of Immokalee.

SURFACE AREA.--1,485 acres.

DRAINAGE AREA.--27 mi^2, approximately.

PERIOD OF RECORD.--March 1941 to current year. Records of elevations prior to October 1960 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is 16.43 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1960, at several sites in the immediate vicinity at same datum. May 15, 1962, to Sept. 30, 1962, auxiliary nonrecording gage in canal at county boat landing, 0.3 mi southeast. Oct. 1, 1962, to Nov. 25, 1968, nonrecording gage at same site and datum. Gage readings have been reduced to elevations NGVD. Gage relocated March 30, 1988 because of excessive aquatic growth in ditch causing erroneous record at low stage.

REMARKS.--Estimated daily elevations: June 14-20. Lake is landlocked except above an elevation of about 21 ft, when there is overflow to the south into Corkscrew Swamp.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 22.79 ft Sept. 23, 1947; minimum, 15.90 ft estimated June 6-10, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 20.25 ft Oct. 1; minimum, 17.36 ft June 23.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.24	19.69	19.47	19.18	18.98	18.58	18.44	18.14	17.65	17.70	18.74	19.96
2	20.22	19.68	19.44	19.17	18.97	18.57	18.42	18.10	17.63	17.76	18.81	20.02
3	20.21	19.66	19.43	19.17	18.97	18.69	18.40	18.08	17.62	17.80	19.13	20.13
4	20.20	19.71	19.42	19.14	18.96	18.72	18.39	18.05	17.62	17.84	19.22	20.14
5	20.17	19.74	19.41	19.12	18.95	18.71	18.38	18.03	17.61	17.88	19.28	20.13
6	20.15	19.72	19.40	19.12	18.93	18.70	18.35	18.02	17.53	17.91	19.33	20.13
7	20.13	19.70	19.40	19.11	18.92	18.75	18.34	17.99	17.47	17.96	19.39	20.11
8	20.11	19.68	19.39	19.10	18.91	18.78	18.31	17.96	17.44	18.00	19.48	20.10
9	20.09	19.66	19.39	19.09	18.88	18.77	18.29	17.94	17.40	18.03	19.60	20.08
10	20.07	19.66	19.38	19.08	18.86	18.76	18.27	17.93	17.40	18.03	19.67	20.06
11	20.05	19.65	19.38	19.07	18.85	18.75	18.25	17.90	17.45	18.04	19.74	20.04
12	20.03	19.64	19.38	19.07	18.83	18.75	18.22	17.88	17.45	18.04	19.78	20.02
13	20.00	19.63	19.36	19.06	18.81	18.74	18.21	17.86	17.54	18.08	19.84	20.00
14	19.98	19.61	19.34	19.04	18.80	18.73	18.20	17.85	17.58	18.11	19.92	19.98
15	19.95	19.60	19.33	19.03	18.78	18.72	18.22	17.87	17.64	18.10	19.93	19.96
16	19.93	19.59	19.33	19.02	18.77	18.72	18.20	17.85	17.68	18.11	19.93	19.95
17	19.92	19.58	19.31	19.01	18.76	18.71	18.23	17.84	17.72	18.12	19.93	19.97
18	19.91	19.57	19.28	19.00	18.74	18.70	18.25	17.82	17.78	18.14	19.95	19.99
19	19.90	19.56	19.27	18.98	18.72	18.68	18.24	17.80	17.74	18.22	19.99	20.08
20	19.88	19.55	19.27	18.98	18.72	18.67	18.22	17.79	17.68	18.29	20.07	20.06
21	19.87	19.54	19.26	18.97	18.72	18.66	18.20	17.77	17.62	18.34	20.08	20.04
22	19.85	19.55	19.26	19.04	18.70	18.64	18.17	17.76	17.38	18.37	20.10	20.02
23	19.83	19.60	19.25	19.05	18.68	18.64	18.16	17.75	17.38	18.39	20.10	20.02
24	19.81	19.54	19.25	19.04	18.64	18.60	18.14	17.74	17.41	18.43	20.09	20.02
25	19.80	19.52	19.24	19.02	18.62	18.58	18.12	17.73	17.46	18.45	20.07	20.07
26	19.78	19.52	19.22	19.02	18.60	18.56	18.10	17.72	17.46	18.48	20.06	20.06
27	19.76	19.51	19.22	19.02	18.59	18.55	18.08	17.71	17.47	18.49	20.04	20.05
28	19.74	19.51	19.22	19.01	18.59	18.53	18.05	17.70	17.52	18.50	20.03	20.03
29	19.72	19.48	19.21	19.01	---	18.52	18.06	17.69	17.56	18.59	20.01	20.02
30	19.71	19.48	19.20	19.00	---	18.51	18.13	17.68	17.61	18.62	19.99	20.01
31	19.70	---	19.19	18.99	---	18.49	---	17.66	---	18.67	19.98	---
MEAN	19.96	19.60	19.32	19.06	18.79	18.66	18.23	17.86	17.55	18.18	19.75	20.04
MAX	20.24	19.74	19.47	19.18	18.98	18.78	18.44	18.14	17.78	18.67	20.10	20.14
MIN	19.70	19.48	19.19	18.97	18.59	18.49	18.05	17.66	17.38	17.70	18.74	19.95

CAL YR 1988 MEAN 19.91 MAX 20.78 MIN 19.03
WTR YR 1989 MEAN 18.92 MAX 20.24 MIN 17.38

02291500 IMPERIAL RIVER NEAR BONITA SPRINGS, FL

LOCATION.--Lat 26°20'07", long 81°44'59", in SW¼ sec.31, T.47 S., R.26 E., Lee County, Hydrologic Unit 03090204, (Bonita Springs Quadrangle), on left bank, 4 ft downstream of bridge on Orr Rd., 2.0 mi east 0.1 mi east of Interstate 75, 0.3 mi north of Bonita Beach Rd., 2.0 mi east of U.S. Highway 41 at Bonita Springs, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 528 ft^3/s Oct. 16, 1987, gage height 10.21; minimum discharge, 4.7 ft^3/s June 10, 1988, gage height 3.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 363 ft^3/s Sept. 17, gage height 8.94 ft; minimum discharge, 3.4 ft^3/s June 17, gage height 3.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	18	14	7.9	6.6	6.9	7.8	7.7	8.0	13	32	112
2	102	20	13	7.5	6.5	6.9	7.6	6.8	7.2	14	32	97
3	118	17	13	7.8	6.4	13	8.4	5.8	6.7	16	32	93
4	100	28	12	7.9	6.4	11	8.9	5.9	6.2	25	31	136
5	84	26	13	6.7	6.5	8.4	8.8	6.3	5.5	29	30	182
6	74	19	11	6.0	6.5	7.9	8.6	6.8	5.2	34	29	239
7	65	15	12	7.2	6.5	9.7	7.7	6.6	5.4	40	28	349
8	58	15	12	7.0	6.7	11	7.3	6.0	4.9	44	27	325
9	53	15	11	5.9	6.8	11	7.0	5.6	4.4	42	30	303
10	49	15	11	5.5	6.9	9.8	7.1	5.4	4.2	39	31	274
11	44	15	11	6.9	7.0	8.9	6.9	5.9	4.1	36	32	243
12	42	15	14	7.0	7.1	8.5	6.8	6.1	4.2	33	32	196
13	38	14	15	6.3	7.1	8.4	6.6	5.8	4.3	30	33	158
14	36	14	12	5.8	7.0	7.8	6.4	5.3	4.0	28	43	130
15	33	14	11	5.6	7.0	7.1	7.4	5.1	3.7	26	55	110
16	31	14	12	5.9	7.0	6.8	7.2	5.2	3.3	23	57	95
17	29	14	12	6.2	7.0	6.8	7.0	5.1	3.4	21	58	80
18	29	12	9.6	5.5	7.0	6.8	7.8	5.1	4.5	22	75	68
19	29	13	11	5.4	7.0	6.8	8.3	6.9	5.5	28	85	61
20	27	13	10	5.7	7.0	6.8	8.0	7.7	5.3	30	80	56
21	28	13	9.5	6.1	6.9	6.9	6.8	6.6	7.4	30	73	49
22	28	17	11	17	7.0	6.9	7.1	5.7	9.5	28	84	45
23	26	34	9.2	16	7.1	7.7	7.0	5.9	11	28	89	59
24	25	20	8.6	11	7.3	7.7	6.9	6.6	12	28	99	54
25	24	15	9.4	8.4	7.2	7.8	6.9	8.0	12	27	116	54
26	22	12	9.7	7.1	7.1	7.9	6.8	8.0	13	27	115	58
27	22	12	7.5	7.6	7.0	7.9	6.6	7.6	12	27	123	57
28	21	13	7.0	7.4	6.9	8.2	6.5	7.0	13	28	166	56
29	19	14	7.4	6.8	---	9.5	6.9	7.9	13	29	143	55
30	18	13	7.1	6.5	---	9.3	7.3	8.6	13	31	125	51
31	18	---	7.8	7.0	---	8.5	---	8.1	---	32	113	---
TOTAL	1399	489	333.8	230.6	192.5	258.4	220.4	201.1	215.9	888	2098	3845
MEAN	45.1	16.3	10.8	7.44	6.88	8.34	7.35	6.49	7.20	28.6	67.7	128
MAX	118	34	15	17	7.3	13	8.9	8.6	13	44	166	349
MIN	18	12	7.0	5.4	6.4	6.8	6.4	5.1	3.3	13	27	45
AC-FT	2770	970	662	457	382	513	437	399	428	1760	4160	7630

CAL YR 1988 TOTAL 25489.1 MEAN 69.6 MAX 505 MIN 5.3 AC-FT 50560
WTR YR 1989 TOTAL 10371.7 MEAN 28.4 MAX 349 MIN 3.3 AC-FT 20570

02291500 IMPERIAL RIVER NEAR BONITA SPRINGS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.73	3.63	3.50	3.32	3.20	3.18	3.22	3.33	3.41	3.76	4.31	5.93
2	5.66	3.69	3.50	3.30	3.20	3.18	3.21	3.30	3.38	3.77	4.31	5.68
3	5.98	3.59	3.48	3.31	3.19	3.41	3.24	3.28	3.36	3.84	4.29	5.62
4	5.71	3.91	3.46	3.32	3.19	3.32	3.26	3.28	3.35	4.11	4.27	6.27
5	5.44	3.86	3.47	3.27	3.19	3.23	3.26	3.30	3.33	4.24	4.24	6.89
6	5.26	3.63	3.43	3.25	3.19	3.22	3.25	3.32	3.32	4.39	4.20	7.59
7	5.09	3.53	3.46	3.28	3.19	3.28	3.23	3.32	3.32	4.57	4.17	8.80
8	4.92	3.53	3.45	3.28	3.19	3.34	3.21	3.30	3.31	4.70	4.16	8.55
9	4.78	3.53	3.43	3.24	3.19	3.33	3.21	3.29	3.28	4.64	4.23	8.30
10	4.65	3.52	3.43	3.23	3.19	3.28	3.22	3.29	3.27	4.56	4.25	7.98
11	4.53	3.53	3.42	3.27	3.19	3.26	3.22	3.31	3.26	4.48	4.27	7.63
12	4.47	3.51	3.53	3.26	3.19	3.25	3.22	3.32	3.27	4.39	4.26	7.05
13	4.34	3.49	3.56	3.24	3.19	3.24	3.21	3.32	3.28	4.31	4.30	6.56
14	4.26	3.47	3.45	3.23	3.19	3.22	3.21	3.30	3.26	4.24	4.60	6.16
15	4.19	3.47	3.43	3.21	3.19	3.20	3.25	3.30	3.24	4.17	4.91	5.86
16	4.13	3.49	3.45	3.22	3.19	3.19	3.25	3.31	3.23	4.10	4.96	5.60
17	4.06	3.49	3.45	3.23	3.18	3.19	3.24	3.31	3.23	4.03	4.99	5.36
18	4.04	3.43	3.37	3.21	3.19	3.19	3.28	3.32	3.30	4.06	5.36	5.15
19	4.03	3.44	3.40	3.20	3.18	3.19	3.30	3.37	3.40	4.22	5.53	4.98
20	3.98	3.45	3.39	3.20	3.18	3.19	3.29	3.40	3.42	4.29	5.44	4.83
21	3.99	3.46	3.36	3.21	3.18	3.19	3.26	3.36	3.50	4.27	5.31	4.65
22	3.98	3.59	3.42	3.56	3.18	3.19	3.27	3.33	3.59	4.23	5.50	4.53
23	3.91	4.11	3.36	3.54	3.19	3.22	3.27	3.34	3.65	4.22	5.59	4.92
24	3.89	3.69	3.34	3.38	3.19	3.22	3.27	3.36	3.69	4.22	5.74	4.76
25	3.84	3.56	3.37	3.28	3.19	3.22	3.28	3.41	3.69	4.19	6.01	4.78
26	3.79	3.46	3.38	3.24	3.19	3.23	3.28	3.41	3.72	4.17	5.99	4.88
27	3.77	3.45	3.30	3.25	3.19	3.23	3.27	3.40	3.71	4.16	6.10	4.84
28	3.75	3.48	3.29	3.24	3.18	3.24	3.28	3.37	3.74	4.20	6.72	4.83
29	3.69	3.51	3.30	3.22	---	3.28	3.29	3.41	3.75	4.23	6.39	4.80
30	3.64	3.47	3.29	3.21	---	3.28	3.31	3.43	3.74	4.27	6.13	4.66
31	3.63	---	3.31	3.22	---	3.25	---	3.41	---	4.30	5.95	---
MEAN	4.42	3.57	3.41	3.27	3.19	3.24	3.25	3.34	3.43	4.24	5.05	5.95
MAX	5.98	4.11	3.56	3.56	3.20	3.41	3.31	3.43	3.75	4.70	6.72	8.80
MIN	3.63	3.43	3.29	3.20	3.18	3.18	3.21	3.28	3.23	3.76	4.16	4.53

CAL YR 1988 MEAN 4.57 MAX 10.13 MIN 3.22
WTR YR 1989 MEAN 3.87 MAX 8.80 MIN 3.18

02291524 SPRING CREEK HEADWATER NEAR BONITA SPRINGS, FL

LOCATION.--Lat 26°21'42", long 81°47'27", in SE¼ sec.22, T.47 S., R.25 E., Lee County, Hydrologic Unit 03090204, (Bonita Springs Quadrangle) at culvert on State Highway 887, 1.8 mi north of Bonita Springs, 4.7 mi upstream from mouth and 5.6 mi south of Estero.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Florida State Road Department Bench Mark.

REMARKS.--No estimated daily stage and discharge. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 52 ft^3/s Sept. 1, 1988; maximum gage height, 8.20 ft Sept. 1, 1988; no flow for some days during the 1989 water year; minimum gage height, 6.11 ft June 16, 17.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 23 ft^3/s Sept. 1; maximum gage height, 7.69 ft Sept. 7; no flow for some days; minimum daily discharge, 6.11 ft^3/s June 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	2.2	2.2	1.1	2.2	.24	1.2	.57	.06	6.1	6.7	5.7
2	9.8	2.3	2.1	1.0	2.1	.19	1.1	.52	.04	6.8	7.0	5.2
3	13	2.3	2.1	.96	1.8	1.2	1.0	.47	.03	6.7	6.8	5.1
4	15	2.7	2.1	.96	1.7	1.6	.96	.37	.02	8.1	6.4	4.8
5	14	3.5	2.0	.89	1.6	1.8	.88	.30	.00	8.2	6.1	5.0
6	13	4.1	1.9	.85	1.5	1.9	.96	.24	.00	7.7	5.5	7.1
7	11	4.2	1.9	.85	1.4	2.1	.89	.20	.00	9.9	5.0	23
8	9.2	4.1	1.9	.80	1.4	2.2	.85	.15	.00	9.7	4.6	19
9	8.1	3.9	1.8	.73	1.5	2.5	.85	.15	.00	10	4.2	17
10	7.1	3.7	1.8	.73	1.3	2.7	.79	.14	.00	10	4.3	15
11	6.2	3.5	1.8	.67	1.1	2.7	.73	.14	.00	9.4	4.2	17
12	5.6	3.4	1.8	.62	1.0	2.7	.62	.13	.00	7.7	3.8	18
13	5.2	3.2	1.9	.62	.89	2.6	.62	.13	.00	6.9	3.5	15
14	4.6	3.0	1.8	.62	.77	2.6	.57	.12	.00	6.6	3.1	13
15	4.3	2.8	1.8	.55	.73	2.5	.52	.12	.00	6.0	3.1	12
16	3.9	2.7	1.7	.52	.67	2.4	.49	.12	.00	5.3	2.9	10
17	3.7	2.6	1.6	.52	.58	2.2	.60	.11	.00	4.8	2.6	9.2
18	3.5	2.5	1.6	.52	.52	2.2	1.1	.10	.00	4.6	3.1	8.1
19	3.4	2.5	1.5	.46	.52	2.0	1.1	.12	.09	4.8	4.1	7.4
20	3.3	2.4	1.5	.42	.46	1.9	1.1	.13	.12	4.6	4.5	6.6
21	3.0	2.4	1.5	.47	.42	1.8	1.1	.13	.24	4.3	4.9	5.9
22	3.0	2.5	1.4	1.9	.42	1.7	1.1	.13	1.4	4.2	5.1	5.4
23	2.8	2.8	1.3	2.9	.42	1.6	1.1	.13	4.4	3.9	5.2	5.2
24	2.7	2.8	1.3	3.0	.42	1.6	1.0	.12	4.8	5.2	5.6	5.0
25	2.6	2.7	1.3	3.0	.37	1.5	.96	.11	4.8	5.6	6.6	5.1
26	2.4	2.5	1.3	2.9	.27	1.4	.89	.11	6.0	5.6	6.7	5.8
27	2.3	2.5	1.2	2.8	.24	1.3	.86	.10	6.8	5.6	6.9	6.0
28	2.2	2.5	1.1	2.7	.24	1.2	.79	.08	5.8	5.6	7.4	6.0
29	2.3	2.4	1.1	2.6	---	1.2	.68	.07	5.9	5.2	7.2	5.7
30	2.2	2.3	1.1	2.4	---	1.3	.62	.06	5.8	5.0	6.7	5.2
31	2.3	---	1.1	2.3	---	1.2	---	.06	---	5.5	6.2	---
TOTAL	181.7	87.0	50.5	41.36	26.54	56.03	26.13	5.43	46.30	199.6	160.0	278.5
MEAN	5.86	2.90	1.63	1.33	.95	1.81	.87	.18	1.54	6.44	5.16	9.28
MAX	15	4.2	2.2	3.0	2.2	2.7	1.2	.57	6.8	10	7.4	23
MIN	2.2	2.2	1.1	.42	.24	.19	.49	.06	.00	3.9	2.6	5.8
AC-FT	360	173	100	82	53	111	52	11	92	396	317	552

CAL YR 1988 TOTAL 1631.75 MEAN 4.46 MAX 49 MIN .15 AC-FT 3240
WTR YR 1989 TOTAL 1159.09 MEAN 3.18 MAX 23 MIN .00 AC-FT 2300

02291524 SPRING CREEK HEADWATER NEAR BONITA SPRINGS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.11	6.68	6.66	6.58	6.66	6.50	6.57	6.49	6.34	6.89	6.96	6.93
2	7.11	6.68	6.66	6.58	6.65	6.49	6.56	6.49	6.32	6.92	6.98	6.91
3	7.24	6.68	6.65	6.57	6.63	6.58	6.56	6.49	6.31	6.92	6.97	6.90
4	7.31	6.70	6.65	6.57	6.63	6.61	6.55	6.48	6.30	6.99	6.95	6.89
5	7.30	6.75	6.64	6.56	6.62	6.62	6.54	6.47	6.28	7.00	6.93	6.90
6	7.24	6.78	6.64	6.56	6.61	6.63	6.54	6.46	6.27	6.98	6.90	6.99
7	7.17	6.79	6.64	6.56	6.60	6.64	6.53	6.46	6.26	7.08	6.88	7.60
8	7.11	6.78	6.64	6.56	6.60	6.65	6.53	6.44	6.24	7.07	6.86	7.48
9	7.07	6.77	6.63	6.55	6.61	6.67	6.53	6.44	6.23	7.09	6.84	7.40
10	7.03	6.76	6.63	6.55	6.59	6.68	6.52	6.43	6.22	7.09	6.84	7.34
11	6.99	6.75	6.63	6.54	6.58	6.68	6.52	6.43	6.21	7.06	6.84	7.42
12	6.96	6.74	6.63	6.54	6.57	6.68	6.51	6.43	6.19	6.99	6.82	7.46
13	6.93	6.73	6.64	6.54	6.56	6.68	6.51	6.42	6.18	6.95	6.80	7.35
14	6.90	6.72	6.64	6.54	6.55	6.67	6.50	6.42	6.16	6.94	6.79	7.27
15	6.87	6.71	6.63	6.53	6.55	6.66	6.50	6.41	6.14	6.91	6.79	7.20
16	6.85	6.70	6.63	6.53	6.54	6.65	6.50	6.40	6.12	6.87	6.78	7.15
17	6.83	6.70	6.62	6.53	6.54	6.64	6.51	6.39	6.11	6.86	6.76	7.10
18	6.82	6.69	6.62	6.53	6.53	6.64	6.55	6.38	6.16	6.85	6.78	7.06
19	6.81	6.69	6.61	6.52	6.53	6.63	6.55	6.41	6.38	6.86	6.84	7.02
20	6.80	6.68	6.61	6.52	6.52	6.62	6.55	6.41	6.44	6.85	6.86	6.99
21	6.78	6.68	6.61	6.52	6.52	6.61	6.55	6.41	6.47	6.83	6.88	6.95
22	6.77	6.68	6.60	6.64	6.52	6.61	6.55	6.41	6.59	6.83	6.89	6.93
23	6.76	6.70	6.60	6.71	6.52	6.60	6.55	6.41	6.80	6.81	6.90	6.92
24	6.74	6.70	6.60	6.71	6.52	6.60	6.54	6.41	6.82	6.88	6.92	6.92
25	6.74	6.69	6.60	6.71	6.51	6.59	6.54	6.40	6.82	6.90	6.97	6.92
26	6.72	6.68	6.59	6.70	6.50	6.58	6.53	6.39	6.88	6.90	6.97	6.96
27	6.71	6.68	6.59	6.69	6.50	6.57	6.52	6.38	6.93	6.90	6.98	6.97
28	6.70	6.68	6.58	6.69	6.50	6.57	6.52	6.37	6.88	6.90	7.02	6.97
29	6.70	6.67	6.58	6.68	---	6.57	6.51	6.35	6.88	6.88	7.01	6.95
30	6.69	6.67	6.58	6.67	---	6.58	6.50	6.35	6.88	6.87	6.98	6.93
31	6.69	---	6.58	6.67	---	6.57	---	6.34	---	6.90	6.96	---
MEAN	6.92	6.71	6.62	6.59	6.56	6.62	6.53	6.42	6.43	6.93	6.89	7.09
MAX	7.31	6.79	6.66	6.71	6.66	6.68	6.57	6.49	6.93	7.09	7.02	7.60
MIN	6.69	6.67	6.58	6.52	6.50	6.49	6.50	6.34	6.11	6.81	6.76	6.89

CAL YR 1988 MEAN 6.72 MAX 8.23 MIN 6.41
WTR YR 1989 MEAN 6.69 MAX 7.60 MIN 6.11

02291580 NORTH BRANCH ESTERO RIVER AT ESTERO, FL

LOCATION.--Lat 26°26'30", long 81°47'45", in NE¼ sec.27, T.46 S., R 27 E., Lee County, Hydrologic Unit 03090204, (Estero Quadrangle) on right bank behind house at east end of Broadway Road, 0.6 mi east of railroad tracks, 0.6 mi upstream of gage site for Estero Road at Estero and 3.5 mi upstream from mouth of River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 264 ft^3/s Oct. 12, 1987, gage height 13.32 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft^3/s Oct. 4, gage height, 9.09 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	2.8	.16	.02	.26	.00	.00	.00	.00	.00	.00	.00
2	9.8	3.8	.16	.02	.33	.00	.00	.00	.00	.00	.00	.00
3	9.7	3.3	.15	.01	.32	.00	.00	.00	.00	.00	.00	.00
4	18	7.3	.15	.00	.02	.00	.00	.00	.00	.00	.00	.00
5	17	5.8	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	16	4.9	.14	.23	.00	.00	.00	.00	.00	.00	.00	.00
7	14	4.4	.13	.01	.00	.00	.00	.00	.00	.00	.00	.00
8	11	4.0	.13	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	10	3.6	.13	.15	.00	.00	.00	.00	.00	.00	.00	.00
10	9.1	2.5	.12	.34	.00	.00	.00	.00	.00	.00	.00	.00
11	8.6	.70	.12	.39	.01	.00	.00	.00	.00	.00	.00	.00
12	8.8	.43	.12	.02	.00	.00	.00	.00	.00	.00	.00	.00
13	6.9	.30	.12	.02	.00	.00	.00	.00	.00	.00	.00	.00
14	6.5	.27	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	6.2	.26	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	5.4	.27	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	4.9	.26	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	4.6	.25	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	4.3	.23	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	2.2	.23	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	1.4	.22	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.87	.23	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.59	.23	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.48	.21	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.44	.20	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.59	.19	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	3.3	.19	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	3.5	.19	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	2.8	.17	.03	.00	---	.00	.00	.00	.00	.00	.00	.00
30	1.0	.17	.03	.07	---	.00	.00	.00	.00	.00	.00	.00
31	.51	---	.02	.01	---	.00	---	.00	---	.00	.00	---
TOTAL	200.48	47.60	2.93	1.29	.94	.00	.00	.00	.00	.00	.00	.00
MEAN	6.47	1.59	.095	.042	.034	.000	.000	.000	.000	.000	.000	.000
MAX	18	7.3	.16	.39	.33	.00	.00	.00	.00	.00	.00	.00
MIN	.44	.17	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	398	94	5.8	2.6	1.9	.00	.00	.00	.00	.00	.00	.00

CAL YR 1988 TOTAL 737.47 MEAN 2.01 MAX 27 MIN .00 AC-FT 1460
WTR YR 1989 TOTAL 253.24 MEAN .69 MAX 18 MIN .00 AC-FT 502

02291580 NORTH BRANCH ESTERO RIVER AT ESTERO, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.65	7.88	7.36	7.31	7.61	6.97	7.21	6.59	5.98	6.64	7.26	7.02
2	8.45	7.98	7.36	7.31	7.68	6.99	7.19	6.57	5.96	7.00	7.28	7.08
3	8.43	7.95	7.36	7.31	7.67	7.20	7.16	6.52	5.95	7.13	7.27	7.25
4	9.00	8.28	7.36	7.30	7.29	7.25	7.14	6.49	5.95	7.20	7.25	7.24
5	8.94	8.14	7.36	7.30	7.25	7.25	7.10	6.45	5.94	7.22	7.25	7.24
6	8.85	8.08	7.36	7.53	7.24	7.25	7.08	6.42	5.92	7.24	7.24	7.26
7	8.72	8.06	7.36	7.29	7.22	7.28	7.01	6.39	5.92	7.24	7.23	7.31
8	8.50	8.03	7.36	7.25	7.18	7.27	6.99	6.35	5.92	7.24	7.24	7.31
9	8.48	8.01	7.36	7.47	7.18	7.27	6.98	6.31	5.87	7.24	7.25	7.30
10	8.38	7.88	7.36	7.68	7.17	7.27	6.97	6.28	5.84	7.23	7.26	7.30
11	8.35	7.57	7.36	7.71	7.23	7.26	6.95	6.27	5.81	7.22	7.24	7.30
12	8.36	7.46	7.36	7.29	7.23	7.26	6.91	6.23	5.81	7.23	7.25	7.30
13	8.19	7.39	7.36	7.29	7.21	7.26	6.89	6.20	5.81	7.25	7.25	7.28
14	8.15	7.37	7.35	7.25	7.20	7.27	6.85	6.19	5.79	7.24	7.27	7.27
15	8.12	7.37	7.34	7.24	7.16	7.26	6.84	6.18	5.77	7.24	7.26	7.26
16	8.06	7.38	7.35	7.24	7.13	7.26	6.83	6.15	5.76	7.23	7.24	7.26
17	8.03	7.38	7.34	7.25	7.11	7.25	6.85	6.10	5.80	7.23	7.24	7.26
18	8.01	7.38	7.34	7.25	7.10	7.25	7.00	6.10	5.82	7.23	7.24	7.24
19	7.99	7.37	7.33	7.25	7.11	7.25	6.97	6.32	5.82	7.23	7.25	7.25
20	7.78	7.37	7.33	7.25	7.10	7.25	6.91	6.33	5.88	7.23	7.26	7.24
21	7.66	7.37	7.33	7.25	7.10	7.25	6.86	6.32	5.92	7.22	7.26	7.24
22	7.56	7.39	7.33	7.28	7.11	7.24	6.82	6.29	6.03	7.22	7.25	7.26
23	7.46	7.39	7.32	7.26	7.11	7.22	6.78	6.27	6.10	7.23	7.24	7.25
24	7.41	7.38	7.32	7.25	7.09	7.23	6.74	6.25	6.12	7.24	7.23	7.24
25	7.40	7.37	7.32	7.25	7.08	7.23	6.68	6.21	6.15	7.23	7.23	7.28
26	7.45	7.36	7.32	7.25	7.07	7.23	6.63	6.16	6.11	7.23	7.22	7.27
27	7.92	7.37	7.32	7.25	7.03	7.22	6.60	6.12	6.20	7.23	7.23	7.25
28	7.94	7.37	7.32	7.25	6.98	7.19	6.59	6.06	6.30	7.24	7.22	7.24
29	7.88	7.36	7.31	7.26	---	7.20	6.58	6.02	6.42	7.26	7.19	7.25
30	7.59	7.36	7.31	7.35	---	7.23	6.60	5.99	6.53	7.26	7.12	7.26
31	7.44	---	7.31	7.27	---	7.22	---	6.01	---	7.26	7.07	---
MEAN	8.10	7.60	7.34	7.31	7.20	7.23	6.89	6.26	5.97	7.20	7.23	7.25
MAX	9.00	8.28	7.36	7.71	7.68	7.28	7.21	6.59	6.53	7.26	7.27	7.31
MIN	7.40	7.36	7.31	7.24	6.98	6.97	6.58	5.99	5.76	6.64	7.07	7.02

CAL YR 1988 MEAN 7.25 MAX 9.45 MIN 5.73
WTR YR 1989 MEAN 7.13 MAX 9.00 MIN 5.76

02291597 SOUTH BRANCH ESTERO RIVER AT ESTERO, FL

LOCATION.--Lat 26°25'43", long 81°47'36", in NW¼ sec.34, T.46 S., R.25 E., Lee County, Hydrologic Unit 03090204, (Estero Quadrangle) near left bank on downstream headwall culvert on Corkscrew Road, 1.0 mi east of U.S. Highway 41 at Estero and 5.2 mi upstream from mouth of Estero River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 284 ft^3/s Oct. 14, 1987, gage height, 8.90 ft; minimum discharge, .01 ft^3/s May 12, 1988; minimum gage height, 3.34 ft June 4, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 50 ft^3/s Sept. 7, 8, gage height, 5.54 ft; minimum discharge, .09 ft^3/s, May 8, 9; minimum gage height, 3.40 ft June 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	1.5	.99	.60	.88	.43	.48	17	.19	.79	2.3	3.7
2	5.5	1.4	.95	.60	.86	.43	.42	.17	.20	1.2	2.0	3.7
3	6.2	1.3	.91	.60	.81	.80	.40	.14	.21	1.2	1.9	4.1
4	7.6	2.1	.89	.59	.78	.60	.36	.12	.21	1.2	1.9	4.4
5	6.7	2.2	.87	.53	.74	.79	.36	.11	.21	1.4	1.7	4.2
6	5.7	2.3	.85	.51	.72	.77	.34	.11	.21	1.7	1.6	6.4
7	8.5	2.2	.84	.51	.69	.96	.32	.11	.20	2.0	1.5	42
8	9.9	2.0	.84	.51	.68	1.1	.27	.10	.21	1.8	1.5	46
9	9.1	1.9	.84	.51	.67	1.0	.25	.10	.20	2.0	2.0	38
10	7.3	1.8	.83	.52	.61	.76	.24	.10	.21	2.1	2.2	29
11	6.5	1.7	.81	.52	.55	.73	.23	.11	.20	1.6	2.1	25
12	6.1	1.6	.88	.52	.53	.67	.23	.11	.20	1.8	2.0	16
13	6.0	1.5	.89	.53	.53	.64	.23	.12	.19	2.0	2.0	9.8
14	5.8	1.5	.84	.52	.48	.63	.21	.12	.19	1.9	2.8	7.4
15	4.9	1.4	.79	.53	.52	.64	.21	.12	.17	1.7	2.8	5.9
16	4.5	1.3	.75	.52	.50	.62	.22	.13	.18	1.6	2.7	5.0
17	4.5	1.3	.72	.53	.50	.61	.26	.13	.21	1.6	2.7	4.3
18	4.5	1.2	.68	.52	.48	.60	.24	.14	.23	3.5	2.5	3.8
19	4.4	1.1	.65	.54	.49	.58	.23	.15	.23	2.5	2.2	3.6
20	4.1	1.1	.64	.54	.47	.56	.23	.15	.26	1.9	2.2	3.3
21	3.7	1.1	.64	.58	.47	.56	.23	.15	.28	1.7	2.3	3.0
22	3.4	1.3	.64	.90	.48	.55	.23	.16	.30	1.6	2.2	2.9
23	3.1	7.5	.64	.98	.49	.55	.21	.16	.31	1.6	2.1	3.2
24	2.9	1.3	.64	.99	.45	.55	.20	.17	.31	1.7	2.0	3.1
25	2.7	1.2	.65	.98	.44	.54	.19	.17	.33	1.6	2.0	3.7
26	2.3	1.1	.63	.96	.43	.54	.19	.17	.33	1.5	2.1	4.6
27	2.0	1.1	.62	.96	.43	.53	.19	.16	.35	1.4	3.2	4.5
28	1.9	1.1	.62	.94	.42	.50	.18	.16	.38	1.5	6.4	4.1
29	1.8	1.1	.62	.93	---	.51	.18	.16	.47	2.7	6.3	3.8
30	1.7	1.0	.62	.91	---	.53	.18	.18	.53	2.5	5.0	3.9
31	1.6	---	.60	.89	---	.51	---	.19	---	2.4	4.3	---
TOTAL	151.1	50.2	23.38	20.77	16.11	19.99	7.71	4.34	7.70	55.69	80.5	302.4
MEAN	4.87	1.67	.75	.67	.58	.64	.26	.14	.26	1.80	2.60	10.1
MAX	9.9	7.5	.99	.99	.88	1.1	.48	.19	.53	3.5	6.4	46
MIN	1.6	1.0	.60	.51	.42	.43	.18	.10	.17	.79	1.5	2.9
AC-FT	300	100	46	41	32	40	15	8.6	15	110	160	600

CAL YR 1988 TOTAL 3062.58 MEAN 8.37 MAX 116 MIN .06 AC-FT 6070
WTR YR 1989 TOTAL 739.89 MEAN 2.03 MAX 46 MIN .10 AC-FT 1470

02291597 SOUTH BRANCH ESTERO RIVER AT ESTERO, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.46	3.87	3.72	3.56	3.68	3.48	3.66	3.58	3.53	3.77	4.08	4.23
2	4.40	3.86	3.70	3.56	3.68	3.48	3.62	3.57	3.53	3.90	4.03	4.23
3	4.46	3.83	3.69	3.55	3.66	3.69	3.61	3.54	3.54	3.91	4.01	4.27
4	4.56	4.02	3.68	3.55	3.65	3.72	3.59	3.52	3.54	3.91	3.99	4.30
5	4.50	4.04	3.67	3.52	3.64	3.72	3.59	3.52	3.53	3.95	3.96	4.28
6	4.41	4.06	3.66	3.50	3.63	3.71	3.58	3.52	3.53	4.02	3.93	4.37
7	4.34	4.03	3.66	3.50	3.62	3.79	3.58	3.53	3.52	4.08	3.92	5.32
8	4.34	4.00	3.66	3.50	3.61	3.83	3.54	3.50	3.51	4.03	3.92	5.43
9	4.30	3.97	3.66	3.50	3.61	3.81	3.53	3.50	3.51	4.07	4.02	5.19
10	4.21	3.95	3.66	3.51	3.58	3.72	3.52	3.50	3.50	4.07	4.06	5.03
11	4.17	3.93	3.65	3.51	3.55	3.71	3.52	3.51	3.49	3.98	4.03	4.98
12	4.15	3.91	3.68	3.51	3.54	3.69	3.53	3.51	3.49	4.01	4.01	4.83
13	4.16	3.90	3.68	3.51	3.53	3.68	3.53	3.51	3.48	4.05	4.02	4.67
14	4.16	3.88	3.66	3.51	3.50	3.68	3.52	3.51	3.47	4.03	4.14	4.52
15	4.10	3.86	3.64	3.52	3.53	3.69	3.53	3.52	3.44	4.00	4.14	4.41
16	4.08	3.84	3.62	3.52	3.52	3.68	3.53	3.52	3.44	3.98	4.12	4.32
17	4.09	3.82	3.61	3.52	3.52	3.68	3.58	3.51	3.47	3.96	4.13	4.25
18	4.11	3.80	3.59	3.52	3.51	3.68	3.57	3.53	3.50	4.21	4.10	4.20
19	4.11	3.79	3.58	3.53	3.51	3.67	3.57	3.54	3.49	4.14	4.04	4.16
20	4.10	3.77	3.58	3.53	3.50	3.67	3.57	3.53	3.51	4.02	4.04	4.12
21	4.07	3.77	3.57	3.55	3.50	3.67	3.58	3.53	3.52	3.98	4.06	4.08
22	4.04	3.81	3.57	3.69	3.51	3.67	3.58	3.53	3.54	3.96	4.03	4.06
23	4.02	4.12	3.57	3.72	3.52	3.67	3.57	3.53	3.54	3.95	4.01	4.11
24	4.01	3.82	3.57	3.72	3.49	3.67	3.56	3.53	3.54	3.98	3.99	4.09
25	4.00	3.79	3.58	3.72	3.49	3.67	3.56	3.53	3.54	3.96	3.99	4.15
26	3.95	3.76	3.57	3.71	3.48	3.67	3.57	3.52	3.54	3.92	4.00	4.25
27	3.91	3.75	3.57	3.71	3.48	3.66	3.57	3.51	3.56	3.90	4.18	4.23
28	3.90	3.75	3.57	3.71	3.47	3.66	3.57	3.50	3.57	3.92	4.49	4.19
29	3.90	3.74	3.57	3.70	---	3.67	3.58	3.51	3.62	4.15	4.47	4.15
30	3.88	3.73	3.56	3.70	---	3.67	3.58	3.52	3.66	4.12	4.37	4.16
31	3.87	---	3.56	3.69	---	3.67	---	3.54	---	4.11	4.30	---
MEAN	4.15	3.87	3.62	3.58	3.55	3.68	3.57	3.52	3.52	4.00	4.08	4.42
MAX	4.56	4.12	3.72	3.72	3.68	3.83	3.66	3.58	3.66	4.21	4.49	5.43
MIN	3.87	3.73	3.56	3.50	3.47	3.48	3.52	3.50	3.44	3.77	3.92	4.06

WTR YR 1989 MEAN 3.80 MAX 5.43 MIN 3.44

02291669 SIXMILE CYPRESS CREEK NORTH NEAR FORT MYERS, FL

LOCATION.--Lat 26°31'20", long 81°51'17", in NW¼ sec.31, T.45 S., R.25 E., Lee County, Hydrologic Unit 03090204, 200 ft upstream from Tenmile Canal, 2,200 ft north of Briarcliff Road, 6.9 mi north of Estero, and 7.2 mi south of Ft. Myers.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated stage and discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,830 ft^3/s Aug. 11, 1988, gage height, 7.95 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94 ft^3/s July 3, gage height, 6.46 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	.00	.02	.00	.00	.00	.00	.00	.00	17		
2	25	.00	.01	.00	.00	.00	.00	.00	.00	28		
3	24	.00	.01	.00	.00	.10	.00	.00	.00	46		
4	25	1.1	.01	.00	.00	.23	.00	.00	.00	32		
5	21	1.4	.01	.00	.00	.23	.00	.00	.00	3.4		
6	14	1.8	.01	.00	.00	.18	.00	.00	.00	5.5		
7	9.5	1.6	.01	.00	.00	.20	.00	.00	.00	3.9		
8	6.5	1.2	.01	.00	.00	.17	.00	.00	.00	1.3		
9	4.2	.93	.00	.00	.00	.17	.00	.00	.00	.90		
10	2.9	.74	.00	.00	.00	.12	.00	.00	.00	3.0		
11	2.1	.68	.00	.00	.00	.08	.00	.00	.00	3.4		
12	1.5	.58	.01	.00	.00	.09	.00	.00	.00	3.9		
13	1.3	.40	.00	.00	.00	.10	.00	.00	.00	2.2		
14	.74	.30	.00	.00	.00	.12	.00	.00	.00	.35		
15	.43	.27	.00	.00	.00	.09	.00	.00	.00	.00		
16	.21	.23	.00	.00	.00	.06	.00	.00	.00	.00		
17	.12	.19	.00	.00	.00	.06	.00	.00	.00	.00		
18	.09	.14	.00	.00	.00	.04	.00	.00	.00	.00		
19	.08	.13	.00	.00	.00	.02	.00	.25	.00	.00		
20	.06	.11	.00	.00	.00	.01	.00	.40	.00	.00		
21	.03	.10	.00	.00	.00	.01	.00	.31	.00	.00		
22	.02	.19	.00	.00	.00	.01	.00	.24	.00	.00		
23	.03	.19	.00	.00	.00	.01	.00	.15	.00	.00		
24	.03	.03	.00	.00	.00	.00	.00	.08	.00	.00		
25	.02	.03	.00	.00	.00	.00	.00	.03	.00	.00		
26	.01	.03	.00	.00	.00	.00	.00	.01	.00	.00		
27	.00	.03	.00	.00	.00	.00	.00	.01	.00	.00		
28	.00	.05	.00	.00	.00	.00	.00	.01	.07	.00		
29	.00	.03	.00	.00	---	.00	.00	.01	13	.77		
30	.00	.03	.00	.00	---	.00	.00	.00	14	1.5		
31	.00	---	.00	.00	---	.00	---	.00	---	.30		
TOTAL	164.87	12.51	.10	.00	.00	2.10	.00	1.50	27.07	153.42		
MEAN	5.32	.42	.003	.000	.000	.068	.000	.048	.90	4.95		
MAX	26	1.8	.02	.00	.00	.23	.00	.40	14	46		
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
AC-FT	327	25	.2	.00	.00	4.2	.00	3.0	54	304		

CAL YR 1988 TOTAL 6237.65 MEAN 17.0 MAX 697 MIN .00 AC-FT 12370

02291669 SIXMILE CYPRESS CREEK NORTH NEAR FORT MYERS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.03	5.48	5.52	5.40	5.47	5.12	5.41	5.03	5.47	6.02	5.97	7.56
2	6.02	5.47	5.51	5.40	5.46	5.12	5.39	5.03	5.46	6.10	6.51	7.38
3	6.00	5.47	5.51	5.39	5.45	5.45	5.37	5.00	5.45	6.24	8.34	8.69
4	5.99	5.60	5.51	5.38	5.43	5.56	5.35	4.98	5.49	6.20	7.83	9.15
5	5.95	5.63	5.50	5.36	5.43	5.56	5.36	4.96	5.47	5.98	7.14	9.17
6	5.88	5.65	5.50	5.36	5.41	5.55	5.33	4.91	5.46	6.05	6.67	9.14
7	5.82	5.64	5.50	5.35	5.40	5.55	5.30	4.83	5.46	6.04	6.33	9.11
8	5.76	5.62	5.50	5.34	5.38	5.55	5.28	4.79	5.45	5.96	6.32	9.11
9	5.71	5.61	5.49	5.33	5.36	5.55	5.26	4.79	5.42	5.95	6.79	8.63
10	5.67	5.60	5.49	5.32	5.33	5.54	5.24	4.78	5.41	6.02	6.57	8.09
11	5.64	5.60	5.49	5.31	5.31	5.53	5.22	4.78	5.45	6.03	6.35	7.72
12	5.61	5.59	5.50	5.30	5.28	5.54	5.19	4.77	5.44	6.04	6.40	7.09
13	5.59	5.58	5.49	5.29	5.26	5.54	5.18	4.77	5.43	5.99	6.66	6.91
14	5.56	5.57	5.48	5.28	5.25	5.54	5.16	4.77	5.41	5.90	6.98	6.77
15	5.54	5.56	5.48	5.27	5.23	5.54	5.14	4.77	5.39	5.79	7.10	6.70
16	5.53	5.56	5.48	5.26	5.20	5.53	5.12	4.77	5.37	5.70	7.34	6.63
17	5.51	5.55	5.47	5.25	5.19	5.53	5.13	4.77	5.36	5.64	8.67	6.55
18	5.51	5.55	5.46	5.24	5.17	5.52	5.17	4.84	5.35	5.61	9.35	6.49
19	5.51	5.55	5.45	5.23	5.16	5.51	5.16	5.51	5.42	5.59	9.39	6.41
20	5.50	5.54	5.46	5.22	5.15	5.51	5.17	5.58	5.55	5.57	9.33	6.34
21	5.50	5.54	5.46	5.23	5.13	5.51	5.20	5.57	5.55	5.56	9.26	6.27
22	5.50	5.55	5.46	5.35	5.20	5.51	5.19	5.56	5.57	5.56	9.19	6.20
23	5.50	5.54	5.45	5.42	5.19	5.51	5.17	5.55	5.57	5.57	9.07	6.17
24	5.50	5.52	5.45	5.47	5.17	5.49	5.15	5.54	5.57	5.60	8.62	6.16
25	5.49	5.52	5.45	5.48	5.16	5.48	5.13	5.52	5.57	5.63	7.90	6.30
26	5.49	5.52	5.44	5.48	5.14	5.48	5.11	5.51	5.58	5.68	7.29	6.36
27	5.48	5.52	5.44	5.48	5.14	5.47	5.09	5.51	5.58	5.77	7.61	6.31
28	5.48	5.53	5.43	5.48	5.13	5.46	5.07	5.50	5.59	5.78	7.49	6.27
29	5.47	5.52	5.42	5.48	---	5.46	5.05	5.50	5.96	5.93	7.01	6.23
30	5.47	5.52	5.42	5.48	---	5.46	5.04	5.49	5.99	5.97	6.92	6.21
31	5.47	---	5.41	5.47	---	5.44	---	5.48	---	5.89	6.94	---
MEAN	5.63	5.56	5.47	5.36	5.27	5.49	5.20	5.13	5.51	5.85	7.53	7.20
MAX	6.03	5.65	5.52	5.48	5.47	5.56	5.41	5.58	5.99	6.24	9.39	9.17
MIN	5.47	5.47	5.41	5.22	5.13	5.12	5.04	4.77	5.35	5.56	5.97	6.16

WTR YR 1989 MEAN 5.77 MAX 9.39 MIN 4.77

02291670 SIX MILE CYPRESS CREEK SOUTH NEAR FT. MYERS, FL

LOCATION.--Lat 26°31'05", long 81°51'17", in NW¼ sec.31, T.45 S., R.25 E., Lee County, Hydrologic Unit 03090204, (Fort Myers SE Quadrangle), 200 ft upstream from Tenmile Canal, 700 ft North of Briarcliff Rd, 6.7 mi north of Estero and 7.5 mi south Ft. Myers.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage, discharge estimated Aug. 17 to Sept. 30. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2.9 ft^3/s Aug. 28, 1988, gage height, 6.93 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.7 ft^3/s Aug. 17, gage height, 8.58 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.08	.09	.00	.03	.00	.00	.00	.02	.40	.32	.00
2	.47	.09	.08	.00	.02	.00	.00	.00	.01	.51	.35	.00
3	.40	.07	.09	.00	.01	.06	.00	.00	.01	.59	.62	.00
4	.33	.26	.08	.00	.00	.12	.00	.00	.04	.40	.45	.00
5	.28	.28	.08	.00	.00	.12	.00	.00	.03	.34	.35	.00
6	.20	.27	.08	.00	.00	.11	.00	.00	.02	.36	.28	.00
7	.15	.25	.07	.00	.00	.11	.00	.00	.01	.34	.24	.01
8	.11	.23	.07	.00	.00	.11	.00	.00	.01	.30	.21	.00
9	.08	.21	.06	.00	.00	.11	.00	.00	.00	.27	.22	.00
10	.07	.21	.06	.00	.00	.10	.00	.00	.00	.26	.25	.00
11	.06	.22	.06	.00	.00	.10	.00	.00	.01	.25	.41	.00
12	.03	.21	.06	.00	.00	.10	.00	.00	.00	.26	.42	.00
13	.02	.20	.05	.00	.00	.10	.00	.00	.00	.24	.69	.88
14	.01	.18	.05	.00	.00	.10	.00	.00	.00	.22	1.0	.75
15	.00	.16	.05	.00	.00	.09	.00	.00	.00	.20	1.2	.67
16	.01	.15	.04	.00	.00	.09	.00	.00	.00	.18	1.5	.58
17	.01	.15	.03	.00	.00	.08	.00	.00	.00	.17	.94	.48
18	.01	.15	.02	.00	.00	.08	.00	.00	.00	.16	.18	.41
19	.01	.15	.01	.00	.00	.07	.00	.11	.04	.14	.25	.34
20	.01	.14	.02	.00	.00	.07	.00	.14	.11	.12	.00	.28
21	.02	.14	.02	.00	.00	.06	.00	.12	.11	.11	.00	.27
22	.02	.15	.02	.00	.00	.06	.00	.12	.13	.10	.00	.25
23	.05	.13	.01	.00	.00	.06	.00	.11	.12	.13	.00	.22
24	.05	.11	.01	.02	.00	.05	.00	.09	.13	.18	.00	.20
25	.05	.10	.01	.03	.00	.04	.00	.07	.12	.17	.00	.29
26	.05	.10	.00	.03	.00	.03	.00	.06	.13	.20	.00	.34
27	.05	.11	.00	.03	.00	.02	.00	.06	.15	.25	.00	.28
28	.05	.11	.00	.03	.00	.02	.00	.05	.15	.27	.00	.28
29	.05	.10	.00	.03	---	.02	.00	.05	.35	.43	.00	.26
30	.05	.09	.00	.03	---	.01	.00	.04	.39	.39	.00	.24
31	.06	---	.00	.03	---	.00	---	.03	---	.34	.00	---
TOTAL	3.26	4.80	1.22	.23	.06	2.09	.00	1.05	2.09	8.28	9.88	7.03
MEAN	.11	.16	.039	.007	.002	.067	.000	.034	.070	.27	.32	.23
MAX	.50	.28	.09	.03	.03	.12	.00	.14	.39	.59	1.5	.88
MIN	.00	.07	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00
AC-FT	6.5	9.5	2.4	.5	.1	4.1	.00	2.1	4.1	16	20	14

CAL YR 1988 TOTAL 61.69 MEAN .17 MAX 1.9 MIN .00 AC-FT 122
WTR YR 1989 TOTAL 39.99 MEAN .11 MAX 1.5 MIN .00 AC-FT 79

02291670 SIX MILE CYPRESS CREEK SOUTH NEAR FT. MYERS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.80	5.42	5.46	5.37	5.43	5.07	5.38	4.97	5.43	5.68	5.63	6.28
2	5.79	5.42	5.46	5.36	5.43	5.07	5.36	4.97	5.42	5.74	5.65	6.20
3	5.75	5.41	5.46	5.36	5.42	5.38	5.33	4.94	5.41	5.79	5.80	6.80
4	5.71	5.53	5.46	5.34	5.40	5.50	5.31	4.93	5.45	5.68	5.71	7.28
5	5.68	5.55	5.45	5.32	5.40	5.50	5.31	4.90	5.44	5.64	5.65	7.42
6	5.63	5.54	5.45	5.31	5.38	5.49	5.29	4.89	5.43	5.66	5.61	7.40
7	5.58	5.53	5.45	5.31	5.37	5.50	5.26	4.87	5.42	5.64	5.58	7.41
8	5.55	5.53	5.45	5.30	5.35	5.50	5.24	4.85	5.41	5.62	5.56	7.30
9	5.53	5.52	5.45	5.29	5.32	5.50	5.23	4.83	5.39	5.60	5.57	6.75
10	5.53	5.51	5.45	5.28	5.30	5.49	5.21	4.82	5.38	5.60	5.59	6.59
11	5.52	5.52	5.45	5.27	5.27	5.49	5.18	4.80	5.42	5.59	5.69	6.39
12	5.50	5.51	5.45	5.26	5.25	5.49	5.15	4.78	5.40	5.59	5.69	6.07
13	5.49	5.50	5.44	5.25	5.23	5.49	5.12	4.76	5.40	5.58	5.84	5.96
14	5.47	5.50	5.44	5.24	5.21	5.49	5.10	4.74	5.38	5.57	6.01	5.87
15	5.46	5.49	5.44	5.23	5.19	5.48	5.08	4.73	5.36	5.56	6.10	5.83
16	5.45	5.49	5.44	5.22	5.17	5.48	5.06	4.71	5.33	5.55	6.24	5.78
17	5.45	5.48	5.44	5.22	5.14	5.48	5.08	4.70	5.32	5.54	7.14	5.73
18	5.45	5.48	5.42	5.20	5.13	5.47	5.11	4.84	5.31	5.53	8.35	5.68
19	5.45	5.48	5.42	5.20	5.11	5.47	5.11	5.48	5.37	5.52	8.58	5.64
20	5.44	5.48	5.42	5.18	5.10	5.47	5.13	5.51	5.49	5.50	8.29	5.61
21	5.44	5.47	5.43	5.20	5.08	5.46	5.16	5.51	5.50	5.50	8.03	5.60
22	5.44	5.49	5.42	5.32	5.16	5.46	5.15	5.50	5.51	5.49	7.73	5.59
23	5.45	5.48	5.42	5.39	5.15	5.46	5.12	5.49	5.50	5.51	7.30	5.57
24	5.45	5.46	5.42	5.43	5.13	5.45	5.10	5.48	5.51	5.54	6.96	5.56
25	5.44	5.46	5.41	5.44	5.11	5.44	5.07	5.47	5.51	5.54	6.61	5.61
26	5.44	5.46	5.41	5.44	5.09	5.44	5.05	5.46	5.51	5.56	6.37	5.65
27	5.43	5.47	5.40	5.44	5.09	5.43	5.03	5.46	5.52	5.59	6.44	5.61
28	5.43	5.47	5.40	5.44	5.08	5.43	5.00	5.46	5.52	5.60	6.29	5.60
29	5.42	5.46	5.39	5.44	---	5.43	4.98	5.45	5.65	5.69	6.06	5.59
30	5.42	5.46	5.38	5.44	---	5.42	4.98	5.44	5.68	5.67	6.02	5.58
31	5.41	---	5.38	5.44	---	5.40	---	5.44	---	5.64	6.04	---
MEAN	5.52	5.49	5.43	5.32	5.23	5.44	5.16	5.10	5.45	5.60	6.39	6.13
MAX	5.80	5.55	5.46	5.44	5.43	5.50	5.38	5.51	5.68	5.79	8.58	7.42
MIN	5.41	5.41	5.38	5.18	5.08	5.07	4.98	4.70	5.31	5.49	5.56	5.56

CAL YR 1988 MEAN 5.39 MAX 6.44 MIN 3.88
WTR YR 1989 MEAN 5.52 MAX 8.58 MIN 4.70

02291673 TENMILE CANAL AT CONTROL NEAR ESTERO, FL

LOCATION.--Lat. 26°31'04", long 81°51'18", in NE¼ sec. 1, T.46 S., R.24 E., Lee County, Hydrologic Unit 03090204, on left bank 200 ft upstream of weir, 1.05 mi north of Alico Road, 2.4 mi upstream from mouth and 8.5 mi northwest of Estero.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (State Department of Transportation banch mark).

REMARKS.--Estimated daily discharge Jan. 18 to Feb. 14, no estimated daily stage. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 502 ft^3/s, Aug. 11, 1988, gage height 6.15 ft; no flow for many days each year; minimum gage height, 3.04 ft June 8, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 127 ft^3/s, July 3, gage height 5.87 ft; many days of no flow; minimum gage height, 4.78 ft May 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	.64	3.3	.15	.00	.00	.21	.00	.21	45		
2	51	.56	2.8	.14	.00	.00	.12	.00	.18	67		
3	49	.30	2.2	.12	.00	2.8	.05	.00	.18	94		
4	60	20	2.4	.11	.00	6.6	.02	.00	.25	51		
5	52	23	2.2	.06	.00	5.7	.02	.00	.22	37		
6	42	26	2.0	.03	.00	5.3	.01	.00	.19	44		
7	31	23	2.0	.01	.00	8.1	.00	.00	.17	---		
8	22	19	1.7	.00	.00	7.3	.00	.00	.13	---		
9	17	17	1.3	.00	.00	7.4	.00	.00	.08	---		
10	16	15	1.3	.00	.00	7.4	.00	.00	.06	---		
11	12	17	1.0	.00	.00	6.9	.00	.00	.17	---		
12	10	15	1.8	.00	.00	6.3	.00	.00	.13	---		
13	8.2	13	1.2	.00	.00	5.8	.00	.00	.10	---		
14	5.5	12	.72	.00	.00	5.5	.00	.00	.05	---		
15	3.0	11	.72	.00	.00	5.1	.00	.00	.01	---		
16	2.2	9.9	.86	.00	.00	4.8	.00	.00	.00	---		
17	2.0	8.2	.84	.00	.00	4.9	.00	.00	.00	---		
18	1.7	7.9	.32	.00	.00	4.1	.00	.00	.00	---		
19	1.7	6.6	.28	.00	.00	3.8	.00	3.9	.92	---		
20	1.5	6.2	.28	.00	.00	2.8	.00	3.5	1.8	---		
21	1.3	5.6	.29	.00	.00	2.3	.00	2.5	2.2	---		
22	1.3	6.4	.28	.00	.00	1.7	.00	1.7	2.9	---		
23	1.5	5.5	.27	.00	.00	1.6	.00	1.1	3.0	---		
24	1.3	4.1	.26	.00	.00	1.8	.00	.82	3.3	---		
25	1.1	3.9	.26	.00	.00	1.2	.00	.47	3.1	---		
26	.55	3.5	.25	.00	.00	.98	.00	.30	4.2	---		
27	.49	3.4	.22	.00	.00	.56	.00	.29	4.6	---		
28	.54	4.5	.21	.00	.00	.30	.00	.28	4.9	---		
29	.54	3.6	.21	.00	---	.30	.00	.26	35	---		
30	.43	3.2	.19	.00	---	.26	.00	.24	44	---		
31	.31	---	.17	.00	---	.23	---	.22	---	---		
TOTAL	454.16	295.00	31.83	.62	.00	111.83	.43	15.58	112.05	---		
MEAN	14.7	9.83	1.03	.020	.000	3.61	.014	.50	3.74	---		
MAX	60	26	3.3	.15	.00	8.1	.21	3.9	44	---		
MIN	.31	.30	.17	.00	.00	.00	.00	.00	.00	---		
AC-FT	901	585	63	1.2	.00	222	.9	31	222	---		

02291673 TENMILE CANAL AT CONTROL NEAR ESTERO, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.78	5.51	5.54	5.43	---	5.16	5.45	5.05	5.50	5.73		
2	5.77	5.51	5.54	5.42	---	5.15	5.41	5.07	5.49	5.78		
3	5.75	5.50	5.53	5.42	---	5.46	5.39	5.04	5.48	5.82		
4	5.77	5.62	5.53	5.41	---	5.56	5.38	5.02	5.52	5.75		
5	5.76	5.64	5.53	5.39	---	5.55	5.38	5.00	5.50	5.72		
6	5.73	5.65	5.53	5.38	---	5.55	5.37	4.99	5.49	5.73		
7	5.70	5.64	5.53	5.37	---	5.56	5.33	4.97	5.48	---		
8	5.67	5.62	5.52	5.37	---	5.56	5.31	4.94	5.47	---		
9	5.65	5.62	5.52	5.36	---	5.56	5.29	4.92	5.45	---		
10	5.64	5.61	5.52	5.35	---	5.56	5.27	4.91	5.44	---		
11	5.62	5.61	5.51	5.34	---	5.56	5.25	4.90	5.49	---		
12	5.61	5.61	5.53	5.33	---	5.55	5.23	4.88	5.47	---		
13	5.59	5.60	5.52	5.32	---	5.55	5.21	4.86	5.46	---		
14	5.58	5.60	5.51	5.31	---	5.55	5.19	4.84	5.44	---		
15	5.56	5.59	5.51	5.30	5.25	5.55	5.17	4.83	5.42	---		
16	5.55	5.58	5.51	5.29	5.24	5.54	5.16	4.82	5.40	---		
17	5.55	5.58	5.51	5.28	5.22	5.54	5.17	4.80	5.40	---		
18	5.54	5.57	5.50	---	5.21	5.54	5.21	4.86	5.39	---		
19	5.54	5.57	5.49	---	5.20	5.54	5.20	5.52	5.44	---		
20	5.53	5.56	5.49	---	5.18	5.53	5.21	5.58	5.57	---		
21	5.53	5.56	5.49	---	5.16	5.52	5.23	5.57	5.57	---		
22	5.53	5.56	5.49	---	5.23	5.51	5.23	5.57	5.58	---		
23	5.53	5.56	5.49	---	5.23	5.51	5.21	5.56	5.58	---		
24	5.53	5.55	5.48	---	5.21	5.52	5.19	5.55	5.58	---		
25	5.53	5.55	5.48	---	5.20	5.51	5.17	5.54	5.58	---		
26	5.52	5.54	5.48	---	5.19	5.50	5.15	5.54	5.59	---		
27	5.51	5.54	5.47	---	5.17	5.50	5.13	5.53	5.59	---		
28	5.51	5.55	5.46	---	5.16	5.49	5.11	5.53	5.59	---		
29	5.51	5.54	5.45	---	---	5.49	5.08	5.52	5.71	---		
30	5.50	5.54	5.44	---	---	5.47	5.07	5.51	5.73	---		
31	5.50	---	5.43	---	---	5.46	---	5.51	---	---		
MEAN	5.60	5.58	5.50	---	---	5.50	5.24	5.18	5.51	---		
MAX	5.78	5.65	5.54	---	---	5.56	5.45	5.58	5.73	---		
MIN	5.50	5.50	5.43	---	---	5.15	5.07	4.80	5.39	---		

CAL YR 1988 MEAN 5.42 MAX 6.05 MIN 3.05

02292000 CALOOSAHATCHEE CANAL AT MOORE HAVEN, FL

LOCATION.--Lat 26°50'22", long 81°05'15", in NW¼NW¼ sec.12, T.42 S., R.32 E., Glades County, Hydrologic Unit 03090205, on right bank in boat house at downstream side of hurricane gate structure and lock 1 at Lake Okeechobee outlet, 0.1 mi west of control structure 77, 0.45 mi upstream from U.S. Highway 27, and 15 mi upstream from lock 2.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May to September 1913 (discharge measurements), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1304. Prior to October 1938, published as Threemile Canal near Ritta.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Jan. 17, 1952, at site 0.5 mi downstream, at datum 1.44 ft lower. Jan. 17, 1952 to Sept. 30, 1966, at site 0.5 mi downstream at present datum. October 1938 to September 1966, auxiliary water-stage recorder 0.2 mi upstream from Lake Hicpochee and 3.0 mi downstream. Since October 1966, auxiliary water-stage recorder on upstream side of hurricane gate structure and lock 1.

REMARKS.--Estimated daily discharge: Apr. 20 to June 6. Records poor. Flow regulated by operation of control structure 77 at Lake Okeechobee.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--51 years, 874 ft^3/s, 633,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,290 ft^3/s Apr. 10, 11, 1970; maximum gage height, 15.76 ft present datum Sept. 27, 1948; maximum daily reverse flow, 4,410 ft^3/s May 28, 1982; lock closed and flow consists of leakage and lockage estimated as 5.0 ft^3/s during several periods in each year; minimum gage height, 5.8 ft present datum, estimated Aug. 8, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,060 ft^3/s Apr. 27; maximum gage height, 12.05 ft Nov. 19, 20; lock closed and flow consists of leakage and lockage estimated as 5.0 ft^3/s for many days; maximum daily reverse flow, 286 ft^3/s July 18; minimum gage height, 10.32 ft Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346	118	5.0	5.0	4770	305	351	5.0	841	5.0	5.0	5.0
2	512	5.0	5.0	5.0	2740	209	248	5.0	932	5.0	5.0	5.0
3	504	137	134	5.0	277	58	187	5.0	901	5.0	5.0	5.0
4	5.0	5.0	209	5.0	715	5.0	185	40	521	5.0	5.0	5.0
5	5.0	5.0	5.0	178	488	5.0	183	302	448	5.0	5.0	5.0
6	5.0	5.0	5.0	432	124	5.0	183	350	456	5.0	5.0	5.0
7	5.0	5.0	49	371	216	5.0	261	262	217	5.0	46	5.0
8	5.0	5.0	90	62	332	5.0	430	139	63	5.0	165	5.0
9	5.0	5.0	199	5.0	403	5.0	486	646	51	5.0	70	5.0
10	113	5.0	278	46	108	5.0	513	846	5.0	107	105	5.0
11	539	5.0	272	384	41	5.0	750	809	5.0	182	-41	5.0
12	720	5.0	113	450	230	5.0	546	670	5.0	301	-1.1	5.0
13	870	5.0	5.0	169	63	5.0	5.0	419	5.0	378	94	5.0
14	797	5.0	5.0	171	5.0	5.0	5.0	706	31	373	45	103
15	478	5.0	5.0	168	31	5.0	5.0	345	37	1190	50	245
16	478	5.0	5.0	68	349	5.0	5.0	5.0	5.0	1880	114	5.0
17	170	255	5.0	5.0	597	5.0	5.0	5.0	24	163	107	5.0
18	376	502	5.0	121	268	5.0	5.0	5.0	31	-286	100	3.3
19	627	182	5.0	169	5.0	5.0	5.0	233	5.0	-4.1	54	41
20	433	5.0	275	166	40	5.0	5.0	607	5.0	5.0	38	68
21	311	5.0	222	173	213	5.0	5.0	449	5.0	5.0	5.0	5.0
22	86	5.0	5.0	41	209	209	5.0	289	5.0	5.0	5.0	5.0
23	80	5.0	5.0	5.0	733	76	5.0	325	5.0	5.0	5.0	5.0
24	436	5.0	5.0	5.0	1200	5.0	5.0	458	5.0	5.0	5.0	5.0
25	568	5.0	5.0	5.0	908	5.0	94	408	5.0	5.0	5.0	5.0
26	612	5.0	5.0	5.0	5.0	5.0	533	482	5.0	5.0	5.0	5.0
27	510	5.0	5.0	5.0	5.0	30	6060	803	5.0	5.0	5.0	5.0
28	554	5.0	5.0	5.0	164	293	4170	540	5.0	5.0	5.0	5.0
29	541	5.0	81	5.0	---	423	213	363	5.0	5.0	5.0	5.0
30	502	5.0	492	5.0	---	399	244	509	5.0	5.0	5.0	5.0
31	497	---	405	1830	---	318	---	730	---	5.0	5.0	---
TOTAL	11690.0	1299.0	2909.0	5069.0	15239.0	2425.0	15697.0	11760.0	4638.0	4388.9	1030.9	585.3
MEAN	377	43.3	93.8	164	544	78.2	523	379	155	142	33.3	19.5
MAX	870	502	492	1830	4770	423	6060	846	932	1880	165	245
MIN	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	-286	-41	3.3
AC-FT	23190	2580	5770	10050	30230	4810	31130	23330	9200	8710	2040	1160

CAL YR 1988 TOTAL 118674.0 MEAN 324 MAX 4540 MIN 5.0 AC-FT 235400
WTR YR 1989 TOTAL 76731.1 MEAN 210 MAX 6060 MIN -286 AC-FT 152200

02292000 CALOOSAHATCHEE CANAL AT MOORE HAVEN, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.98	11.30	10.97	11.12	11.26	11.00	11.09	11.39	10.97	11.05	11.26	11.14
2	10.81	11.32	10.93	11.12	11.08	11.08	11.22	11.38	11.00	10.93	11.26	11.34
3	10.98	11.23	10.81	11.12	10.94	11.24	11.31	11.33	11.05	11.14	11.26	11.55
4	11.22	11.29	11.05	11.00	11.00	11.12	11.31	11.23	11.05	11.25	11.06	11.27
5	11.28	11.12	11.20	10.91	11.15	11.11	11.28	11.17	11.07	11.05	10.95	11.34
6	11.08	11.32	11.07	10.85	11.14	11.29	11.27	11.16	11.09	10.91	10.93	11.15
7	11.11	10.99	10.99	11.00	10.97	11.36	11.16	11.19	11.30	11.15	10.90	11.06
8	11.11	11.10	11.12	11.14	10.94	11.28	11.13	11.03	11.27	11.11	11.01	11.11
9	11.09	11.06	10.87	11.11	11.05	11.21	11.21	10.93	11.23	11.01	11.04	11.01
10	11.02	11.13	10.95	11.02	11.24	11.12	11.28	11.06	11.24	10.87	11.11	11.20
11	10.97	11.26	11.07	11.07	11.03	10.96	11.36	11.14	11.23	10.89	11.28	10.97
12	11.04	11.16	11.19	11.17	11.07	11.09	11.54	11.14	11.22	10.87	11.31	10.89
13	11.11	11.17	11.25	11.11	11.22	11.25	11.38	10.92	11.20	10.92	11.39	10.90
14	11.12	11.29	11.30	11.06	11.16	11.22	11.45	11.10	11.11	10.93	11.38	10.77
15	11.11	11.21	11.27	11.13	11.09	11.12	11.58	11.31	11.25	11.02	11.31	10.85
16	11.16	11.02	11.30	11.19	11.00	11.16	11.58	11.32	11.35	10.94	11.34	11.05
17	11.13	10.96	11.22	11.10	11.03	11.24	11.57	11.26	11.15	11.19	11.35	11.24
18	11.11	11.21	11.22	11.00	11.15	11.25	11.27	11.21	11.06	11.44	11.36	11.56
19	11.22	11.36	11.21	11.01	11.15	11.06	11.33	11.16	11.14	11.26	11.46	11.92
20	11.21	11.38	11.19	11.07	11.04	10.98	11.18	11.21	11.39	11.22	11.62	11.99
21	11.17	11.29	11.19	11.12	11.13	10.99	11.20	11.18	11.10	11.29	11.54	11.55
22	11.24	10.67	11.16	11.34	11.15	10.93	11.15	11.15	11.10	11.22	11.64	11.06
23	11.09	11.03	11.11	11.11	10.98	11.33	11.28	11.07	11.10	10.87	11.61	11.20
24	11.05	10.94	11.19	11.05	11.05	11.32	11.36	11.08	11.08	10.91	11.48	10.98
25	11.08	11.02	11.26	11.12	11.17	11.28	11.25	11.17	11.14	11.25	11.24	11.20
26	11.20	11.15	11.17	11.21	11.08	11.16	11.20	11.15	11.23	11.11	11.01	11.10
27	11.18	11.27	11.05	11.28	10.98	10.94	11.31	11.20	11.25	11.27	11.14	11.23
28	11.19	11.28	11.10	11.28	10.95	10.90	11.11	11.20	11.15	11.33	11.25	11.21
29	11.25	11.26	11.06	11.26	---	10.95	10.84	10.99	11.14	11.23	10.97	11.07
30	11.19	11.21	10.96	11.23	---	11.01	11.22	11.02	11.10	11.22	11.04	11.13
31	11.17	---	11.08	11.06	---	11.11	---	10.99	---	11.21	11.25	---
MEAN	11.12	11.17	11.11	11.11	11.08	11.13	11.23	11.16	11.16	11.10	11.25	11.20
MAX	11.28	11.38	11.30	11.34	11.26	11.36	11.58	11.39	11.39	11.44	11.64	11.99
MIN	10.81	10.67	10.81	10.85	10.94	10.90	10.84	10.92	10.97	10.87	10.90	10.77

CAL YR 1988 MEAN 11.12 MAX 11.52 MIN 10.63
WTR YR 1989 MEAN 11.16 MAX 11.99 MIN 10.67

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK NEAR LA BELLE, FL
(National stream-quality accounting network station)

LOCATION.--Lat 26°47'22", long 81°18'11", in SW¼ sec.26, T.42 S., R.30 E., Glades County, Hydrologic Unit 03090205, near right bank, 500 ft upstream from Ortona Lock, 1.4 mi downstream from Long Hammock Creek, and 9.0 mi east of La Belle.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1948 to September 1950 (discharge measurements and gage heights), July 1971 to current year. Records of gage heights and discharge measurements can be found in the records of the Geological Survey.

REVISED RECORDS.--WDR FL-80-2A: 1979.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. (Levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharge: Oct. 1-6, Jan. 5-7, 13, 14, 17, 18, 31. Records good, except those for estimated daily discharges, which are fair. Flow regulated by operation of control structures 77 and 78.

COOPERATION.--Gate-opening record provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--18 years, 769 ft^3/s, 557,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,720 ft^3/s Aug. 8, 1974; maximum gage height, 12.80 ft June 26, 1974; no flow for a few days in some years; minimum gage height, 8.60 ft Nov. 3, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,700 ft^3/s Feb. 1; maximum gage height, 12.14 ft Sept. 19; no flow, May 2, 8, 16, 17, June 19; minimum gage height, 10.01 ft Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	10	171	16	4700	20	197	.90	391	690	290	102
2	190	94	16	21	2360	23	61	.00	390	758	11	247
3	116	67	15	16	169	135	18	2.7	393	618	147	1640
4	14	1620	12	19	412	368	18	50	101	699	190	1860
5	305	1020	15	132	261	74	18	180	3.5	726	194	2330
6	309	1350	60	369	59	136	18	184	40	218	177	1510
7	12	918	134	63	21	736	18	127	89	168	7.8	1140
8	13	403	93	20	18	1090	18	.00	2.6	382	13	792
9	22	415	109	14	24	1090	18	84	2.7	92	9.0	492
10	89	159	15	19	87	484	73	334	7.1	12	11	116
11	317	241	143	164	170	284	198	363	2.7	9.5	10	295
12	240	298	135	362	24	19	341	151	.90	11	16	7.9
13	133	83	243	197	21	16	336	98	2.7	14	22	12
14	360	67	187	59	17	17	203	184	3.5	15	11	6.8
15	198	162	188	18	55	24	538	148	3.6	13	10	8.6
16	166	20	194	15	243	19	685	.00	151	10	11	15
17	15	68	132	18	302	25	1330	.00	286	9.8	10	9.0
18	43	195	13	16	67	115	1980	.90	60	655	12	16
19	196	165	15	22	22	164	926	151	.00	1160	19	13
20	195	383	237	19	21	21	935	397	244	985	1150	306
21	99	742	165	18	22	21	962	233	555	949	1130	1610
22	18	433	230	480	153	17	973	50	236	1170	1510	506
23	65	489	102	548	242	22	503	.00	557	620	2040	584
24	193	320	16	321	651	19	173	.00	393	159	2210	413
25	198	16	49	18	530	20	169	.90	394	402	2030	598
26	195	24	193	16	18	23	408	111	436	356	965	718
27	199	44	65	17	16	16	2140	400	626	13	795	644
28	197	192	19	23	16	95	2220	240	782	149	1050	700
29	199	195	96	26	---	199	17	10	834	199	1310	337
30	193	219	320	15	---	198	18	130	771	193	6.2	190
31	149	---	241	1960	---	197	---	297	---	193	303	---
TOTAL	4828	10412	3623	5021	10701	5687	15512	3927.40	7760.30	11648.3	15670.0	17218.3
MEAN	156	347	117	162	382	183	517	127	259	376	505	574
MAX	360	1620	320	1960	4700	1090	2220	400	834	1170	2210	2330
MIN	12	10	12	14	16	16	17	.00	.00	9.5	6.2	6.8
AC-FT	9580	20650	7190	9960	21230	11280	30770	7790	15390	23100	31080	34150

CAL YR 1988 TOTAL 197216.80 MEAN 539 MAX 4190 MIN 6.0 AC-FT 391200
WTR YR 1989 TOTAL 112008.30 MEAN 307 MAX 4700 MIN .00 AC-FT 222200

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK, NEAR LA BELLE, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK) (00009)	TEMPERATURE WATER (DEG C) (00010)	TEMPERATURE AIR (DEG C) (00020)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	WEATHER (WMO CODE NUMBER) (00041)	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	GAGE HEIGHT (FEET) (00065)
NOV											
15...	0850	--	--	--	--	--	--	80020	0	152	11.25
15...	0851	0.50	60.0	24.5	--	--	1028	1028	--	--	--
15...	0852	3.00	60.0	24.5	--	--	1028	1028	--	--	--
15...	0853	5.00	60.0	24.5	--	--	1028	1028	--	--	--
15...	0854	10.0	60.0	24.5	--	--	1028	1028	--	--	--
15...	0855	17.0	60.0	24.5	--	--	1028	1028	--	--	--
15...	0900	0.50	175	24.5	--	--	1028	1028	--	--	--
15...	0901	3.00	175	24.5	--	--	1028	1028	--	--	--
15...	0902	5.00	175	24.5	--	--	1028	1028	--	--	--
15...	0903	10.0	175	24.5	--	--	1028	1028	--	--	--
15...	0904	17.0	175	24.5	--	--	1028	1028	--	--	--
15...	0910	0.50	290	24.5	--	--	1028	1028	--	--	--
15...	0911	3.00	290	24.5	--	--	1028	1028	--	--	--
15...	0912	5.00	290	24.5	--	--	1028	1028	--	--	--
15...	0913	10.0	290	24.5	--	--	1028	1028	--	--	--
15...	0914	17.0	290	24.5	--	--	1028	1028	--	--	--
JAN											
30...	1230	--	--	--	21.0	771	--	80020	1	15	11.30
30...	1231	0.50	60.0	22.0	--	--	1028	1028	--	--	--
30...	1232	3.00	60.0	21.5	--	--	1028	1028	--	--	--
30...	1233	5.00	60.0	21.5	--	--	1028	1028	--	--	--
30...	1234	10.0	60.0	21.5	--	--	1028	1028	--	--	--
30...	1235	13.0	60.0	21.0	--	--	1028	1028	--	--	--
30...	1240	0.50	175	22.0	--	--	1028	1028	--	--	--
30...	1241	3.00	175	21.5	--	--	1028	1028	--	--	--
30...	1242	5.00	175	21.5	--	--	1028	1028	--	--	--
30...	1243	10.0	175	21.5	--	--	1028	1028	--	--	--
30...	1244	18.0	175	21.5	--	--	1028	1028	--	--	--
30...	1250	0.50	290	22.5	--	--	1028	1028	--	--	--
30...	1251	3.00	290	21.5	--	--	1028	1028	--	--	--
30...	1252	5.00	290	21.5	--	--	1028	1028	--	--	--
30...	1253	10.0	290	21.5	--	--	1028	1028	--	--	--
30...	1254	13.0	290	21.0	--	--	1028	1028	--	--	--
JUN											
20...	0915	0.50	60.0	31.5	--	--	1028	1028	--	--	--
20...	0916	3.00	60.0	31.0	--	--	1028	1028	--	--	--
20...	0917	5.00	60.0	31.0	--	--	1028	1028	--	--	--
20...	0918	10.0	60.0	31.0	--	--	1028	1028	--	--	--
20...	0919	17.0	60.0	29.5	--	--	1028	1028	--	--	--
20...	0930	0.50	175	31.0	--	--	1028	1028	--	--	--
20...	0931	3.00	175	31.0	--	--	1028	1028	--	--	--
20...	0932	5.00	175	31.0	--	--	1028	1028	--	--	--
20...	0933	10.0	175	31.0	--	--	1028	1028	--	--	--
20...	0934	17.0	175	30.5	--	--	1028	1028	--	--	--
20...	0945	0.50	290	31.5	--	--	1028	1028	--	--	--
20...	0946	3.00	290	31.0	--	--	1028	1028	--	--	--
20...	0947	5.00	290	31.0	--	--	1028	1028	--	--	--
20...	0948	10.0	290	31.0	--	--	1028	1028	--	--	--
20...	0949	17.0	290	31.0	--	--	1028	1028	--	--	--
20...	1000	--	--	--	29.0	--	--	80020	1	244	11.50
AUG											
09...	1020	0.50	60.0	31.0	--	--	1028	1028	--	--	--
09...	1021	3.00	60.0	30.5	--	--	1028	1028	--	--	--
09...	1022	5.00	60.0	30.5	--	--	1028	1028	--	--	--
09...	1023	10.0	60.0	30.5	--	--	1028	1028	--	--	--
09...	1024	17.0	60.0	30.0	--	--	1028	1028	--	--	--
09...	1040	0.50	175	31.0	--	--	1028	1028	--	--	--
09...	1041	3.00	175	30.5	--	--	1028	1028	--	--	--
09...	1042	5.00	175	30.5	--	--	1028	1028	--	--	--
09...	1043	10.0	175	30.5	--	--	1028	1028	--	--	--
09...	1044	17.0	175	29.5	--	--	1028	1028	--	--	--
09...	1100	--	--	--	32.0	--	--	80020	1	9.0	11.50
09...	1110	0.50	290	31.0	--	--	1028	1028	--	--	--
09...	1111	3.00	290	31.0	--	--	1028	1028	--	--	--
09...	1112	5.00	290	30.5	--	--	1028	1028	--	--	--
09...	1113	10.0	290	30.5	--	--	1028	1028	--	--	--
09...	1114	17.0	290	30.5	--	--	1028	1028	--	--	--

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK, NEAR LA BELLE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TURBIDITY (NTU) (00076)	TRANSPARENCY (SECCHI DISK) (IN) (00077)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV										
15...	3.0	--	555	--	8.30	7.90	157	1.5	0.080	0.070
15...	--	--	551	6.8	7.54	--	--	--	--	--
15...	--	--	552	6.7	7.50	--	--	--	--	--
15...	--	--	552	6.5	7.48	--	--	--	--	--
15...	--	--	551	6.3	7.40	--	--	--	--	--
15...	--	--	551	6.0	7.41	--	--	--	--	--
15...	--	--	549	6.1	7.37	--	--	--	--	--
15...	--	--	550	5.9	7.37	--	--	--	--	--
15...	--	--	551	6.0	7.35	--	--	--	--	--
15...	--	--	551	6.0	7.32	--	--	--	--	--
15...	--	--	552	5.9	7.32	--	--	--	--	--
15...	--	--	551	7.4	7.46	--	--	--	--	--
15...	--	--	551	6.4	7.40	--	--	--	--	--
15...	--	--	551	6.2	7.22	--	--	--	--	--
15...	--	--	551	6.2	7.23	--	--	--	--	--
15...	--	--	549	6.0	7.34	--	--	--	--	--
JAN										
30...	2.5	54.0	604	--	7.80	8.00	--	--	--	--
30...	--	--	604	9.2	8.40	--	--	--	--	--
30...	--	--	608	8.1	8.30	--	--	--	--	--
30...	--	--	607	7.1	8.23	--	--	--	--	--
30...	--	--	607	6.8	8.15	--	--	--	--	--
30...	--	--	607	6.8	8.11	--	--	--	--	--
30...	--	--	604	8.4	8.04	--	--	--	--	--
30...	--	--	604	8.0	7.50	--	--	--	--	--
30...	--	--	603	8.2	7.59	--	--	--	--	--
30...	--	--	602	8.3	8.15	--	--	--	--	--
30...	--	--	602	8.5	8.16	--	--	--	--	--
30...	--	--	604	9.2	8.32	--	--	--	--	--
30...	--	--	604	9.1	8.29	--	--	--	--	--
30...	--	--	605	8.4	8.25	--	--	--	--	--
30...	--	--	605	7.8	8.21	--	--	--	--	--
30...	--	--	605	7.2	8.19	--	--	--	--	--
JUN										
20...	--	--	538	5.5	8.17	--	--	--	--	--
20...	--	--	538	5.2	8.27	--	--	--	--	--
20...	--	--	539	5.3	8.25	--	--	--	--	--
20...	--	--	543	3.7	8.03	--	--	--	--	--
20...	--	--	555	0.4	7.39	--	--	--	--	--
20...	--	--	532	5.5	8.26	--	--	--	--	--
20...	--	--	532	4.9	8.19	--	--	--	--	--
20...	--	--	533	4.3	8.17	--	--	--	--	--
20...	--	--	541	1.2	7.73	--	--	--	--	--
20...	--	--	551	1.2	7.50	--	--	--	--	--
20...	--	--	541	5.9	8.20	--	--	--	--	--
20...	--	--	552	5.4	8.24	--	--	--	--	--
20...	--	--	554	4.4	8.23	--	--	--	--	--
20...	--	--	559	3.2	7.93	--	--	--	--	--
20...	--	--	559	3.1	7.81	--	--	--	--	--
20...	8.4	42.0	550	--	8.13	7.60	133	1.9	0.050	0.090
AUG										
09...	--	--	582	3.2	7.49	--	--	--	--	--
09...	--	--	580	3.0	7.48	--	--	--	--	--
09...	--	--	580	3.0	7.47	--	--	--	--	--
09...	--	--	587	2.3	7.44	--	--	--	--	--
09...	--	--	603	0.5	7.34	--	--	--	--	--
09...	--	--	584	3.0	7.50	--	--	--	--	--
09...	--	--	582	2.6	7.48	--	--	--	--	--
09...	--	--	580	2.6	7.45	--	--	--	--	--
09...	--	--	580	2.5	7.43	--	--	--	--	--
09...	--	--	607	0.4	7.30	--	--	--	--	--
09...	1.2	43.0	580	--	8.26	7.90	200	1.5	0.070	0.070
09...	--	--	580	3.2	7.49	--	--	--	--	--
09...	--	--	617	3.0	7.47	--	--	--	--	--
09...	--	--	615	2.6	7.45	--	--	--	--	--
09...	--	--	616	2.4	7.42	--	--	--	--	--
09...	--	--	578	2.3	7.42	--	--	--	--	--

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK, NEAR LA BELLE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHOROUS TOTAL (MG/L AS P) (00665)	PHOSPHOROUS DISSOLVED (MG/L AS P) (00666)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
NOV										
15...	0.040	1.6	0.730	0.140	0.100	0.070	56	12	41	6.5
15...	--	--	--	--	--	--	--	--	--	--
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JAN										
30...	--	--	--	--	--	--	54	15	51	5.3
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JUN										
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20...	--	--	--	--	--	--	--	--	--	--
20...	<0.010	2.0	<0.100	0.160	0.120	0.080	39	13	48	5.6
AUG										
09...	--	--	--	--	--	--	--	--	--	--
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09...	--	--	--	--	--	--	--	--	--	--
09...	0.010	1.6	<0.100	0.110	0.090	0.060	74	8.5	31	6.1
09...	--	--	--	--	--	--	--	--	--	--
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02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK, NEAR LA BELLE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)
NOV										
15...	67	43	0.30	9.7	2	32	<0.5	<1	<1	<3
15...	--	--	--	--	--	--	--	--	--	--
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15...	--	--	--	--	--	--	--	--	--	--
JAN										
30...	83	43	0.30	4.7	2	34	<0.5	<1	<1	<3
30...	--	--	--	--	--	--	--	--	--	--
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JUN										
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20...	--	--	--	--	--	--	--	--	--	--
20...	77	37	0.20	7.1	1	24	<0.5	3	2	<3
AUG										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
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09...	--	--	--	--	--	--	--	--	--	--
09...	52	32	0.20	10	2	21	<0.5	<1	1	<3
09...	--	--	--	--	--	--	--	--	--	--
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09...	--	--	--	--	--	--	--	--	--	--
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09...	--	--	--	--	--	--	--	--	--	--

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK, NEAR LA BELLE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
15...	1	70	<5	3	<10	2	<1.0	720	<6	14
15...	--	--	--	--	--	--	--	--	--	--
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15...	--	--	--	--	--	--	--	--	--	--
JAN										
30...	4	31	<5	<1	<10	2	<1.0	880	<6	33
30...	--	--	--	--	--	--	--	--	--	--
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JUN										
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20...	--	--	--	--	--	--	--	--	--	--
20...	10	98	17	7	<10	2	<1.0	840	<6	14
AUG										
09...	--	--	--	--	--	--	--	--	--	--
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09...	--	--	--	--	--	--	--	--	--	--
09...	3	150	8	15	<10	2	<1.0	520	<6	30
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
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09...	--	--	--	--	--	--	--	--	--	--

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK, NEAR LA BELLE, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	COLI-FORM, FEC.L, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE WATER DISS UNCOR-RECTED (MG/L) (99890)
NOV										
15...	<10	9	<1	18	170	357	<0.1	565	143	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
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15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
JAN										
30...	<10	6	<1	9	15	369	<0.1	616	151	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
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30...	--	--	--	--	--	--	--	--	--	--
JUN										
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
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20...	--	--	--	--	--	--	--	--	--	--
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20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	10	<4	<1	35	15	325	--	546	108	--
AUG										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	50	6	<1	230	15	384	0.1	579	183	<1.0
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--

02292780 TOWNSEND CANAL NEAR ALVA, FL

LOCATION.--Lat 26°42'33", long 81°33'30", in SW¼ sec.30, T.43 S., R.28 E., Hendry County, Hydrologic Unit 03090205, on north side of bridge on State Highway 80, 3.2 mi east of Alva, 9 mi west of La Belle, and 9.6 mi east of Olga.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1975 to current year.

GAGE.--Water-stage recorders. Prior to July 1983, deflection vane recorder at same site. Prior to Oct. 1, 1987, electromagnetic velocity meter at same site. Datum of gage is National Geodetic Vertical Datum of 1929. Since April 17, 1987 supplementary water-stage recorder at site 1000 ft downstream. Since Dec. 4, 1987 auxillary upstream recorder at site above primary gage.

REMARKS.--Estimated daily discharge: Feb. 23. Records poor. Flow regulated by pump station upstream and control and gate structure downstream. Flow frequently reversed to supply water for agricultural purposes (negative figures indicate flow to the south). Discharge computed from stage-discharge relation or slope discharge relation.

AVERAGE DISCHARGE.--6 years (water years 1977-82), 5.81 ft^3/s, 4,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,670 ft^3/s June 19, 1982; maximum gage height, 9.98 ft June 9, 1983; maximum daily reverse flow, 1,000 ft^3/s Apr. 7, 1983; minimum gage height, 1.08 ft July 27, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 323 ft^3/s Sept. 5; maximum gage height, 7.05 ft June 26; maximum daily reverse flow, 1030 ft^3/s Feb. 24; minimum gage height, 1.95 ft Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-572	-167	-44	-78	-312	-95	-216	-41	-393	117	70	-439
2	-487	-68	.00	-98	-384	-99	-13	2.0	-426	77	40	-347
3	-193	-59	.00	-134	-702	18	-14	-6.7	-268	106	7.7	-65
4	56	314	-27	-267	-659	61	23	-51	-140	140	1.0	162
5	55	175	-122	-477	-174	27	3.5	-112	-176	85	-25	323
6	.00	94	-238	-289	-59	1.0	-30	-175	-46	197	-51	23
7	-54	26	-239	-144	-2.7	59	-102	-22	80	111	-42	4.1
8	-119	-9.1	-280	-98	-14	72	-46	-106	34	102	-105	-32
9	-309	-13	-234	-151	-103	30	-94	-550	2.7	91	-126	-61
10	-452	-45	-159	-230	-321	.90	-250	-593	-13	70	99	-19
11	-462	-57	-136	-521	-191	.50	-366	-288	4.4	26	144	-33
12	-418	-66	-14	-245	-34	.70	-310	-228	26	-175	34	-53
13	-504	-59	30	-93	-142	-3.5	-311	-378	4.0	-118	66	-80
14	-385	-84	4.4	-7.6	-200	-21	-230	-164	-39	-1.3	58	-155
15	-344	-186	-9.3	-7.6	-344	-149	71	-43	-101	.20	.20	-173
16	-197	-258	-51	-22	-401	-156	66	-2.1	-183	-18	-19	-42
17	-163	-310	-89	-9.6	-184	---	75	-26	-182	-3.4	-140	-127
18	-312	-257	-66	-9.7	-125	---	19	-137	-104	111	-7.4	-37
19	-260	-116	-162	-134	-51	---	.60	-399	-188	-60	41	-58
20	-162	-40	-304	-223	-107	---	.70	-201	-54	-46	34	23
21	-174	-84	-272	-104	-184	-86	1.4	-87	31	-24	19	-84
22	-284	-69	-149	-27	-271	-75	-33	-78	83	-30	16	-205
23	-293	2.7	-59	76	-824	-57	-74	-1.3	26	-21	30	-271
24	-370	-10	-1.8	.00	-1030	-25	-191	-7.3	13	13	-20	-51
25	-362	-13	-.40	.00	-649	-4.0	-372	-63	149	45	-36	90
26	-292	-1.8	-14	-17	-242	.10	-348	-375	234	28	-114	186
27	-192	-11	-49	-25	.80	-84	-215	-201	119	.20	-86	117
28	-371	-9.2	-325	-31	-34	-383	-319	-127	220	65	-57	43
29	-258	-137	-396	-16	---	-386	-211	-190	216	98	-250	2.0
30	-255	-245	-498	-58	---	-307	-114	-299	122	99	-257	.20
31	-168	---	-160	-241	---	-275	---	-392	---	80	-266	---
TOTAL	-8301.00	-1762.4	-4074.10	-3681.50	-7742.90	---	-3598.80	-5341.4	-948.9	1164.70	-941.50	-1358.70
MEAN	-268	-58.7	-131	-119	-277	---	-120	-172	-31.6	37.6	-30.4	-45.3
MAX	56	314	30	76	.80	---	75	2.0	234	197	144	323
MIN	-572	-310	-498	-521	-1030	---	-372	-593	-426	-175	-266	-439
AC-FT	-16470	-3500	-8080	-7300	-15360	---	-7140	-10590	-1880	2310	-1870	-2690

CALOOSAHATCHEE RIVER

02292780 TOWNSEND CANAL NEAR ALVA, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.48	2.93	3.46	3.05	2.81	3.02	2.88	3.36	2.63	5.14	4.75	2.62
2	2.54	3.09	4.04	3.01	2.72	3.02	3.21	3.96	2.60	4.88	4.51	2.74
3	2.93	3.15	3.96	2.94	2.31	4.05	3.22	3.61	2.79	5.02	4.20	3.26
4	4.37	5.25	3.46	2.75	2.38	4.84	3.89	3.04	3.02	5.22	3.81	5.15
5	4.73	5.38	3.03	2.49	2.91	4.35	4.04	2.97	2.90	4.95	3.16	5.53
6	3.71	5.00	2.80	2.75	3.12	3.95	3.38	2.93	3.45	5.46	3.04	4.21
7	3.29	4.34	2.80	2.97	3.40	4.53	2.96	3.19	4.59	5.04	3.10	3.91
8	2.97	3.55	2.73	3.01	3.28	4.92	2.99	3.04	4.51	4.95	3.09	3.38
9	2.72	3.52	2.80	2.94	3.03	4.69	2.95	2.48	3.89	4.91	3.14	3.00
10	2.53	3.27	2.85	2.80	2.71	4.25	2.71	2.41	3.38	4.76	4.81	3.19
11	2.54	3.16	2.90	2.47	2.88	3.80	2.61	2.76	4.17	4.49	5.19	3.14
12	2.64	3.21	3.60	2.80	3.20	3.81	2.70	2.85	4.12	3.47	4.62	3.08
13	2.51	3.16	4.35	3.07	3.00	3.52	2.78	2.63	4.00	3.36	4.72	3.01
14	2.64	3.13	3.81	3.26	2.88	3.23	2.88	2.84	3.37	3.38	4.65	2.96
15	2.69	2.90	3.56	3.26	2.68	2.98	4.67	3.53	2.99	3.38	4.11	2.92
16	2.87	2.78	3.23	3.24	2.61	2.95	4.73	3.55	2.84	3.23	3.68	3.16
17	2.92	2.68	3.03	3.32	2.93	3.91	4.78	3.17	2.92	3.42	3.01	3.03
18	2.70	2.76	3.07	3.34	3.03	4.17	4.54	2.96	3.02	4.76	3.36	3.20
19	2.76	2.99	2.94	3.02	3.12	4.01	4.13	2.60	2.84	3.82	4.24	3.78
20	2.93	3.16	2.72	2.84	3.03	3.54	3.87	2.85	3.03	3.04	4.47	4.42
21	2.94	3.01	2.79	2.97	2.89	3.09	3.73	3.09	4.05	3.17	4.39	3.43
22	2.76	3.59	3.01	3.73	2.76	3.03	3.14	3.20	4.82	3.12	4.48	2.82
23	2.69	4.22	3.16	4.78	2.28	3.06	2.93	3.68	4.51	3.17	4.53	2.83
24	2.64	3.41	3.30	4.15	2.13	3.27	2.86	3.57	4.44	3.98	3.63	3.18
25	2.67	3.35	3.31	3.96	2.49	3.34	2.59	3.12	5.18	4.56	3.19	4.69
26	2.75	3.29	3.25	3.49	3.01	3.38	2.66	2.63	5.38	4.55	3.01	5.29
27	2.89	3.25	3.15	3.33	3.99	3.14	2.92	2.85	5.07	4.30	3.00	5.07
28	2.69	3.25	2.72	3.18	3.45	2.64	2.71	3.03	5.48	4.71	3.12	4.56
29	2.82	2.98	2.57	3.23	---	2.62	2.83	2.91	5.56	4.96	2.73	4.10
30	2.83	2.84	2.49	3.15	---	2.71	2.89	2.67	5.12	4.36	2.79	4.06
31	2.96	---	2.93	2.88	---	2.76	---	2.59	---	4.79	2.82	---
MEAN	2.91	3.42	3.16	3.17	2.89	3.57	3.31	3.03	3.89	4.29	3.79	3.66
MAX	4.73	5.38	4.35	4.78	3.99	4.92	4.78	3.96	5.56	5.46	5.19	5.53
MIN	2.48	2.68	2.49	2.47	2.13	2.62	2.59	2.41	2.60	3.04	2.73	2.62

WTR YR 1989 MEAN 3.43 MAX 5.56 MIN 2.13

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL

LOCATION.--Lat 26°43'25", long 81°41'55", in SW¼ sec.23, T.43 S., R.26 E., Lee County, Hydrologic Unit 03090205, in control house at southeast end of lock at salinity-control structure 79, 1 mi upstream from Telegraph Creek, and 1.2 mi northeast of Olga.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1964 to March 1966 (gage heights), April 1966 to current year.

REVISED RECORD.--WDR FL-79-2A; 1978.

GAGE.--Dual water-stage recorder, gate-opening recorder, and gate-opening indicators. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharge: Dec. 2, 3. Records good, except for those for estimated daily discharge, which are fair. Flow regulated by operation of salinity-control structure 79. Discharge computed from relations between discharge, head, and gate opening.

COOPERATION.--Records of gate and lock operation provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--23 years, 1,740 ft^3/s, 1,261,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21,400 ft^3/s Mar. 27, 1970; maximum gage height, 5.42 ft June 18, 1982; no flow for some days in 1981, 1985, 1986; minimum gage height, 1.18 ft Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,270 ft^3/s Feb. 1; maximum gage height, 3.79 ft Nov. 4; minumim daily discharge, 1.2 ft^3/s May 1; minimum gage height, 2.77 ft Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	7.2	566	20	5270	14	16	1.2	56	2610	1380	232
2	19	9.2	285	18	3160	16	18	121	73	2540	941	649
3	125	8.5	72	11	15	977	15	400	19	1740	887	3000
4	755	3750	135	11	22	1450	141	264	22	3060	899	3730
5	1460	3010	55	12	22	825	635	8.7	4.8	2430	734	4600
6	717	2830	11	11	16	617	103	20	3.4	2130	700	3410
7	9.6	1990	14	17	279	1830	15	28	19	1470	195	2340
8	28	742	10	21	199	2330	14	5.6	826	1830	398	1950
9	26	792	9.3	11	62	2150	12	7.6	168	1360	751	1300
10	12	213	12	9.5	18	1210	12	3.7	167	751	1810	1100
11	11	703	14	9.5	20	520	13	8.0	415	910	2300	1170
12	7.8	536	445	11	24	22	16	12	192	571	1320	659
13	12	95	1040	14	16	212	39	21	186	6.8	1070	371
14	12	111	985	21	16	291	326	22	129	93	1280	273
15	24	266	388	23	13	313	1370	5.9	3.4	748	899	212
16	19	11	771	10	17	892	1570	6.7	7.5	173	774	228
17	12	15	215	13	21	962	2440	8.1	20	585	389	123
18	8.3	10	13	32	23	668	3200	7.4	28	1490	553	403
19	8.1	19	8.1	155	24	508	1510	10	4.0	2230	1340	670
20	7.6	65	9.2	17	20	163	1440	23	291	1550	2740	1300
21	11	1680	9.9	10	13	18	1290	61	1410	1970	2760	2280
22	18	1050	165	1010	8.7	15	1950	60	1240	1910	3550	671
23	19	1030	102	1400	11	12	617	9.2	1570	1430	3930	922
24	7.2	211	17	866	15	18	113	62	1260	890	3660	1180
25	8.8	22	275	18	21	29	12	117	1780	1450	3170	2000
26	7.6	144	432	245	21	74	13	12	1770	1250	1540	2920
27	11	157	86	96	192	215	1950	32	2010	731	1470	2910
28	13	594	16	27	292	59	2780	33	2430	1250	2200	2590
29	18	292	14	28	---	15	13	32	2780	1620	1780	1600
30	22	32	17	15	---	15	12	6.8	2120	1460	157	1360
31	9.3	---	17	1990	---	11	---	6.3	---	1080	646	---
TOTAL	3437.3	20394.9	5808.5	6161.0	9823.7	16461	21655	1415.2	21004.1	43318.8	46223	46153
MEAN	111	680	187	199	351	531	722	45.7	700	1397	1491	1538
MAX	1460	3750	1040	1990	5270	2330	3200	400	2780	3060	3930	4600
MIN	7.2	7.2	8.1	9.5	8.7	11	12	1.2	3.4	6.8	157	123
AC-FT	6820	40450	11520	12220	19490	32650	42950	2810	41660	85920	91680	91540

CAL YR 1988 TOTAL 366618.4 MEAN 1002 MAX 6780 MIN 4.5 AC-FT 727200
WTR YR 1989 TOTAL 241855.5 MEAN 663 MAX 5270 MIN 1.2 AC-FT 479700

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1945 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	TEMPERATURE WATER (DEG C) (00010)	TEMPERATURE AIR (DEG C) (00020)	BAROMETRIC PRESSURE (MM OF HG) (00025)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	GAGE HEIGHT (FEET) (00065)	COLOR (PLATINUM-COBALT UNITS) (00080)	SPECIFIC CONDUCTANCE (US/CM) (00095)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT											
06...	0950	0.50	28.5	--	--	1028	1028	3.11	--	446	9.8
06...	0951	3.00	28.5	--	--	1028	1028	--	--	447	12.1
06...	0952	5.00	29.0	--	--	1028	1028	--	--	445	11.8
06...	0953	10.0	29.0	--	--	1028	1028	--	--	445	10.4
06...	0954	22.0	27.5	--	--	1028	1028	--	--	445	5.5
18...	0915	0.50	26.0	--	--	--	81213	3.10	90	451	4.5
18...	0916	3.00	26.5	--	--	1028	1028	--	--	448	13.3
18...	0917	5.00	26.5	--	--	1028	1028	--	--	459	10.5
18...	0918	10.0	26.5	--	--	1028	1028	--	--	459	8.7
18...	0919	22.0	26.0	--	--	1028	1028	--	--	791	6.4
NOV											
01...	1300	0.50	26.0	--	--	1028	1028	--	--	660	--
01...	1301	3.00	26.5	--	--	1028	1028	--	--	669	--
01...	1302	5.00	26.0	--	--	1028	1028	--	--	682	--
01...	1303	10.0	26.0	--	--	1028	1028	--	--	691	--
01...	1304	22.0	26.0	--	--	1028	1028	--	--	2260	--
15...	1230	0.50	25.5	27.0	763	--	81213	3.29	90	516	8.3
15...	1231	3.00	25.0	--	--	1028	1028	--	--	518	16.0
15...	1232	5.00	25.0	--	--	1028	1028	--	--	517	12.1
15...	1233	10.0	25.0	--	--	1028	1028	--	--	538	11.2
15...	1234	22.0	25.0	--	--	1028	1028	--	--	1020	6.8
22...	1300	0.50	--	--	--	1028	1028	--	--	602	--
22...	1301	22.0	--	--	--	1028	1028	--	--	697	--
DEC											
01...	1430	0.50	23.5	--	--	1028	1028	--	--	761	--
01...	1431	3.00	23.5	--	--	1028	1028	--	--	761	--
01...	1432	5.00	23.5	--	--	1028	1028	--	--	761	--
01...	1433	10.0	23.5	--	--	1028	1028	--	--	761	--
01...	1434	22.0	23.5	--	--	1028	1028	--	--	810	--
JAN											
30...	1200	0.50	--	--	--	1028	1028	--	--	676	--
30...	1201	22.0	--	--	--	1028	1028	--	--	976	--
FEB											
14...	1200	0.50	23.5	--	--	1028	1028	--	--	758	--
14...	1201	22.0	--	--	--	1028	1028	--	--	1410	--
MAR											
02...	1130	0.50	21.0	--	--	1028	1028	--	--	997	--
02...	1131	22.0	--	--	--	1028	1028	--	--	1420	--
10...	0955	0.50	20.0	--	--	1028	1028	--	--	780	--
10...	0956	22.0	--	--	--	1028	1028	--	--	779	--
APR											
04...	1230	0.50	--	--	--	1028	1028	--	--	806	--
04...	1231	22.0	--	--	--	1028	1028	--	--	1380	--
MAY											
03...	1350	0.50	29.0	--	--	1028	1028	--	--	670	--
03...	1351	22.0	--	--	--	1028	1028	--	--	704	--
JUN											
07...	1200	0.50	--	--	--	1028	1028	--	--	910	--
07...	1201	22.0	--	--	--	1028	1028	--	--	1000	--
JUL											
05...	1010	0.50	30.0	--	--	1028	1028	--	--	638	--
05...	1011	22.0	--	--	--	1028	1028	--	--	664	--
AUG											
02...	1115	0.50	--	--	--	1028	1028	--	--	570	--
02...	1116	22.0	--	--	--	1028	1028	--	--	650	--
SEP											
01...	1440	0.50	34.0	--	--	1028	1028	3.23	--	528	--
01...	1441	22.0	--	--	--	1028	1028	--	--	539	--
19...	0900	0.50	29.5	--	--	1028	1028	--	--	475	--
19...	0901	22.0	--	--	--	1028	1028	--	--	475	--

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT											
06...	7.26	--	--	--	--	--	--	--	--	--	--
06...	7.26	--	--	--	--	--	--	--	--	--	--
06...	7.25	--	--	--	--	--	--	--	--	--	--
06...	7.25	--	--	--	--	--	--	--	--	--	--
06...	7.21	--	--	--	--	--	--	--	--	--	--
18...	7.63	8.10	159	2.0	0.290	0.290	0.010	0.010	2.3	2.3	0.610
18...	7.62	--	--	--	--	--	--	--	--	--	--
18...	7.62	--	--	--	--	--	--	--	--	--	--
18...	7.61	--	--	--	--	--	--	--	--	--	--
18...	7.56	--	--	--	--	--	--	--	--	--	--
NOV											
01...	7.36	--	--	--	--	--	--	--	--	--	--
01...	7.42	--	--	--	--	--	--	--	--	--	--
01...	7.44	--	--	--	--	--	--	--	--	--	--
01...	7.44	--	--	--	--	--	--	--	--	--	--
01...	7.33	--	--	--	--	--	--	--	--	--	--
15...	7.32	7.92	288	1.2	0.010	0.010	<0.010	<0.010	1.0	1.2	0.790
15...	7.32	--	--	--	--	--	--	--	--	--	--
15...	7.37	--	--	--	--	--	--	--	--	--	--
15...	7.37	--	--	--	--	--	--	--	--	--	--
15...	7.42	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
DEC											
01...	7.69	--	--	--	--	--	--	--	--	--	--
01...	7.71	--	--	--	--	--	--	--	--	--	--
01...	7.70	--	--	--	--	--	--	--	--	--	--
01...	7.69	--	--	--	--	--	--	--	--	--	--
01...	7.66	--	--	--	--	--	--	--	--	--	--
JAN											
30...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
APR											
04...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
MAY											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
AUG											
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
SEP											
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHOROUS TOTAL (MG/L AS P) (00665)	PHOSPHOROUS DISSOLVED (MG/L AS P) (00666)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
OCT											
06...	--	--	--	--	--	--	--	--	--	40	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	40	--
18...	0.610	0.380	0.380	0.350	16	65	9.6	32	3.3	56	27
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	70	--
NOV											
01...	--	--	--	--	--	--	--	--	--	98	--
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	600	--
15...	0.780	0.200	0.180	0.160	17	60	10	31	5.8	52	34
15...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	94	--
22...	--	--	--	--	--	--	--	--	--	120	--
DEC											
01...	--	--	--	--	--	--	--	--	--	120	--
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--
JAN											
30...	--	--	--	--	--	--	--	--	--	88	--
30...	--	--	--	--	--	--	--	--	--	170	--
FEB											
14...	--	--	--	--	--	--	--	--	--	140	--
14...	--	--	--	--	--	--	--	--	--	300	--
MAR											
02...	--	--	--	--	--	--	--	--	--	190	--
02...	--	--	--	--	--	--	--	--	--	310	--
10...	--	--	--	--	--	--	--	--	--	120	--
10...	--	--	--	--	--	--	--	--	--	120	--
APR											
04...	--	--	--	--	--	--	--	--	--	130	--
04...	--	--	--	--	--	--	--	--	--	300	--
MAY											
03...	--	--	--	--	--	--	--	--	--	96	--
03...	--	--	--	--	--	--	--	--	--	96	--
JUN											
07...	--	--	--	--	--	--	--	--	--	170	--
07...	--	--	--	--	--	--	--	--	--	190	--
JUL											
05...	--	--	--	--	--	--	--	--	--	78	--
05...	--	--	--	--	--	--	--	--	--	84	--
AUG											
02...	--	--	--	--	--	--	--	--	--	66	--
02...	--	--	--	--	--	--	--	--	--	76	--
SEP											
01...	--	--	--	--	--	--	--	--	--	52	--
01...	--	--	--	--	--	--	--	--	--	52	--
19...	--	--	--	--	--	--	--	--	--	46	--
19...	--	--	--	--	--	--	--	--	--	48	--

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL--Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	IRON, DISSOLVED (UG/L AS FE) (01046)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P) (70507)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	ALKALINITY LAB (MG/L AS CACO3) (90410)
OCT											
06...	--	--	--	--	--	--	--	--	0	--	--
06...	--	--	--	--	--	--	--	--	0	--	--
06...	--	--	--	--	--	--	--	--	0	--	--
06...	--	--	--	--	--	--	--	--	0	--	--
06...	--	--	--	--	--	--	--	--	0	--	--
18...	0.30	9.2	160	500	72	18	346	0.350	0	14	<0.1
18...	--	--	--	--	--	--	--	--	0	--	--
18...	--	--	--	--	--	--	--	--	0	--	--
18...	--	--	--	--	--	--	--	--	0	--	--
18...	--	--	--	--	--	--	--	--	0	--	--
NOV											
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
15...	0.40	10	120	560	8	150	339	0.170	0	533	146
15...	--	--	--	--	--	--	--	--	0	--	--
15...	--	--	--	--	--	--	--	--	0	--	--
15...	--	--	--	--	--	--	--	--	0	--	--
15...	--	--	--	--	--	--	--	--	0	--	--
22...	--	--	--	--	--	--	--	--	0	--	--
22...	--	--	--	--	--	--	--	--	0	--	--
DEC											
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
JAN											
30...	--	--	--	--	--	--	--	--	0	--	--
30...	--	--	--	--	--	--	--	--	0	--	--
FEB											
14...	--	--	--	--	--	--	--	--	0	--	--
14...	--	--	--	--	--	--	--	--	0	--	--
MAR											
02...	--	--	--	--	--	--	--	--	0	--	--
02...	--	--	--	--	--	--	--	--	0	--	--
10...	--	--	--	--	--	--	--	--	0	--	--
10...	--	--	--	--	--	--	--	--	0	--	--
APR											
04...	--	--	--	--	--	--	--	--	0	--	--
04...	--	--	--	--	--	--	--	--	0	--	--
MAY											
03...	--	--	--	--	--	--	--	--	0	--	--
03...	--	--	--	--	--	--	--	--	0	--	--
JUN											
07...	--	--	--	--	--	--	--	--	0	--	--
07...	--	--	--	--	--	--	--	--	0	--	--
JUL											
05...	--	--	--	--	--	--	--	--	0	--	--
05...	--	--	--	--	--	--	--	--	0	--	--
AUG											
02...	--	--	--	--	--	--	--	--	0	--	--
02...	--	--	--	--	--	--	--	--	0	--	--
SEP											
01...	--	--	--	--	--	--	--	--	0	--	--
01...	--	--	--	--	--	--	--	--	0	--	--
19...	--	--	--	--	--	--	--	--	0	--	--
19...	--	--	--	--	--	--	--	--	0	--	--

02293214 MEADE CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°38'10", long 81°55'50", in NE¼ sec.20 T.44 S., R.24 E., Lee County, Hydrologic Unit 0300205, (Fort Myers NW Quadrangle), near left bank on upstream side of wingwall of bridge on Biscaya Parkway, 100 ft west of S.E. 21st Avenue, and 1.5 mi upstream from Caloosahatchee River at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department Bench Mark.

REMARKS.--Estimated daily stage and discharge: Sept. 29, 30. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70 ft^3/s Oct. 12, 1987, gage height, 6.79 ft; no flow for many days each year; minimum gage height, 4.36 ft Sept. 27, 28, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft^3/s Aug. 18, gage height, 5.85 ft; no flow for many days; minimum gage height, 4.49 ft Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.88	.80	.95	.00	.08	.00	.00	17	25	21
2	.00	.00	.61	.80	.86	.00	.00	.00	.00	20	24	21
3	.00	.00	.50	.80	.79	3.6	.00	.00	.00	22	22	21
4	.00	4.0	.53	.67	.69	2.3	.00	.00	.00	34	22	22
5	.00	2.5	.53	.46	.64	1.6	.00	.00	.00	28	21	23
6	.00	1.9	.58	.49	.58	1.3	.00	.00	.00	29	20	23
7	.00	1.5	.66	.50	.53	1.4	.00	.00	.00	28	20	22
8	.00	1.3	.67	.52	.53	1.2	.00	.00	.00	25	19	23
9	.00	1.2	.69	.52	.42	1.0	.00	.00	.00	23	18	23
10	.00	1.1	.68	.53	.23	.86	.00	.00	.00	22	17	22
11	.00	1.1	.92	.51	.14	.68	.00	.00	.00	21	18	21
12	.00	1.1	2.5	.53	.11	.67	.00	.00	.00	20	17	21
13	.00	1.1	1.6	.53	.10	.72	.00	.00	.00	21	18	20
14	.00	.99	1.3	.51	.11	.76	.00	.00	.00	22	18	20
15	.00	.94	1.2	.44	.13	.76	.00	.00	.00	20	18	20
16	.00	.94	1.2	.41	.13	.76	.00	.00	.00	19	17	20
17	.00	.95	1.0	.41	.12	.74	.39	.00	.00	18	18	20
18	.00	.95	.80	.38	.15	.66	.85	.32	.00	18	27	19
19	.00	.83	.67	.37	.11	.65	.69	2.4	.50	17	31	18
20	.00	.80	.78	.32	.10	.56	.64	1.6	1.6	17	27	18
21	.00	.80	.80	.52	.07	.48	.64	1.3	1.9	17	27	18
22	.00	.89	.83	2.5	.34	.43	.44	.99	2.3	17	28	17
23	.00	1.1	.92	2.0	.22	.35	.32	.86	2.4	17	25	18
24	.00	.84	.86	1.6	.00	.43	.21	.76	5.3	19	23	18
25	.00	.69	.87	1.4	.00	.34	.13	.66	9.7	18	22	19
26	.00	.66	.84	1.3	.00	.29	.03	.61	7.8	19	22	18
27	.00	.71	.80	1.3	.00	.27	.00	.47	8.7	24	22	18
28	.00	1.2	.79	1.1	.00	.23	.00	.41	12	31	22	17
29	.00	1.1	.80	1.1	---	.15	.00	.32	16	32	21	17
30	.00	.95	.80	1.0	---	.08	.00	.21	15	30	20	17
31	.00	---	.80	.95	---	.11	---	09	---	27	19	---
TOTAL	.00	32.14	27.41	25.27	8.05	23.38	4.42	11.00	83.20	692	668	595
MEAN	.000	1.07	.88	.82	.29	.75	.15	.35	2.77	22.3	21.5	19.8
MAX	.00	4.0	2.5	2.5	.95	3.6	.85	2.4	16	34	31	23
MIN	.00	.00	.50	.32	.00	.00	.00	.00	.00	17	17	17
AC-FT	.00	64	54	50	16	46	8.8	22	165	1370	1320	1180

CAL YR 1988 TOTAL 1150.67 MEAN 3.14 MAX 33 MIN .00 AC-FT 2280
WTR YR 1989 TOTAL 2169.87 MEAN 5.94 MAX 34 MIN .00 AC-FT 4300

CALOOSAHATCHEE RIVER

02293214 MEADE CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.51	5.07	5.22	5.21	5.22	5.13	5.15	5.10	5.13	5.48	5.47	5.40
2	4.56	5.07	5.20	5.21	5.21	5.14	5.12	5.10	5.13	5.51	5.45	5.38
3	4.65	5.07	5.19	5.21	5.21	5.35	5.11	5.08	5.12	5.53	5.41	5.38
4	4.71	5.37	5.19	5.20	5.20	5.29	5.11	5.06	5.10	5.68	5.40	5.41
5	4.75	5.30	5.19	5.18	5.20	5.26	5.13	5.05	5.09	5.56	5.38	5.44
6	4.78	5.28	5.19	5.19	5.19	5.24	5.12	5.03	5.07	5.58	5.36	5.43
7	4.80	5.25	5.20	5.19	5.19	5.25	5.10	5.02	5.05	5.55	5.35	5.41
8	4.81	5.24	5.20	5.19	5.19	5.24	5.09	4.99	5.03	5.48	5.33	5.42
9	4.83	5.24	5.20	5.19	5.18	5.22	5.08	4.97	5.02	5.44	5.30	5.43
10	4.85	5.23	5.20	5.19	5.16	5.21	5.08	4.95	5.01	5.41	5.29	5.41
11	4.87	5.23	5.21	5.19	5.15	5.20	5.07	4.94	5.00	5.39	5.31	5.39
12	4.88	5.23	5.31	5.19	5.15	5.20	5.06	4.92	4.98	5.36	5.29	5.37
13	4.90	5.23	5.26	5.19	5.15	5.20	5.05	4.90	4.96	5.39	5.29	5.36
14	4.91	5.22	5.24	5.19	5.15	5.21	5.06	4.89	4.94	5.41	5.32	5.36
15	4.92	5.22	5.23	5.18	5.15	5.21	5.06	4.88	4.92	5.35	5.30	5.36
16	4.93	5.22	5.23	5.18	5.15	5.21	5.06	4.86	4.90	5.33	5.29	5.36
17	4.95	5.22	5.22	5.18	5.15	5.21	5.12	4.85	4.89	5.31	5.31	5.35
18	4.96	5.22	5.21	5.18	5.15	5.20	5.21	4.90	4.89	5.30	5.52	5.34
19	4.97	5.21	5.20	5.18	5.15	5.20	5.20	5.30	5.02	5.29	5.62	5.32
20	4.99	5.21	5.21	5.17	5.15	5.19	5.20	5.26	5.21	5.28	5.53	5.32
21	5.00	5.21	5.21	5.19	5.15	5.19	5.20	5.24	5.22	5.28	5.53	5.30
22	5.01	5.22	5.21	5.30	5.17	5.18	5.18	5.22	5.25	5.27	5.55	5.29
23	5.01	5.23	5.22	5.26	5.16	5.17	5.17	5.21	5.25	5.29	5.49	5.30
24	5.02	5.21	5.21	5.26	5.13	5.18	5.16	5.21	5.33	5.34	5.44	5.31
25	5.03	5.20	5.21	5.25	5.12	5.17	5.15	5.20	5.43	5.31	5.42	5.32
26	5.03	5.20	5.21	5.24	5.12	5.17	5.14	5.20	5.36	5.32	5.41	5.32
27	5.03	5.20	5.21	5.24	5.12	5.17	5.14	5.19	5.38	5.45	5.40	5.30
28	5.04	5.24	5.21	5.23	5.12	5.16	5.13	5.18	5.44	5.62	5.40	5.29
29	5.05	5.23	5.21	5.23	---	5.15	5.12	5.17	5.52	5.65	5.38	5.29
30	5.05	5.22	5.21	5.22	---	5.15	5.11	5.16	5.48	5.60	5.36	5.28
31	5.06	---	5.21	5.22	---	5.15	---	5.15	---	5.52	5.34	---
MEAN	4.90	5.22	5.21	5.21	5.16	5.20	5.12	5.07	5.14	5.43	5.39	5.35
MAX	5.06	5.37	5.31	5.30	5.22	5.35	5.21	5.30	5.52	5.68	5.62	5.44
MIN	4.51	5.07	5.19	5.17	5.12	5.13	5.05	4.85	4.89	5.27	5.29	5.28

CAL YR 1988 MEAN 5.20 MAX 5.86 MIN 4.37
WTR YR 1989 MEAN 5.20 MAX 5.68 MIN 4.51

02293216 MACKINAC CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°38'09", long 81°57'29", in NW¼ sec.19, T.44 S., R.24 E., Lee County, Hydrologic Unit 03090205, (Fort Myers NW quadrangle), near left bank on upstream side of wingwall of bridge on SE 9th St., 105 ft west of S.E. 8th St., .4 mi upstream from Country Club Blvd. bridge and 3.4 mi upstream from Caloosahatchee River at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department bench mark.

REMARKS.--No estimated daily stage and discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 135 ft^3/s July 19, 1987, gage height, 8.21 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--No flowing during the year; maximum gage height, 6.93 ft July 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1988 TOTAL 94.88 MEAN .26 MAX 17 MIN .00 AC-FT 188
WTR YR 1989 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

CALOOSAHATCHEE RIVER

02293216 MACKINAC CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.28	6.19	6.26	6.24	6.30	6.15	6.15	6.02	6.11	6.68	6.64	6.65
2	6.30	6.18	6.25	6.24	6.30	6.16	6.12	6.02	6.10	6.71	6.62	6.64
3	6.36	6.17	6.23	6.24	6.29	6.31	6.11	5.99	6.09	6.74	6.58	6.62
4	6.37	6.35	6.23	6.22	6.29	6.34	6.11	5.97	6.09	6.90	6.54	6.60
5	6.36	6.37	6.22	6.20	6.29	6.35	6.12	5.96	6.07	6.81	6.50	6.60
6	6.33	6.37	6.21	6.20	6.28	6.34	6.11	5.95	6.05	6.81	6.47	6.63
7	6.32	6.35	6.21	6.20	6.28	6.35	6.09	5.93	6.04	6.84	6.45	6.66
8	6.30	6.33	6.21	6.19	6.27	6.34	6.07	5.90	6.02	6.76	6.43	6.68
9	6.29	6.32	6.21	6.19	6.26	6.33	6.06	5.88	6.00	6.70	6.41	6.81
10	6.29	6.32	6.22	6.19	6.24	6.31	6.06	5.87	5.99	6.64	6.39	6.75
11	6.28	6.31	6.23	6.18	6.23	6.29	6.05	5.85	5.98	6.59	6.39	6.69
12	6.28	6.30	6.33	6.18	6.22	6.28	6.03	5.83	5.96	6.55	6.37	6.64
13	6.27	6.30	6.31	6.18	6.21	6.28	6.02	5.81	5.95	6.54	6.37	6.63
14	6.25	6.29	6.29	6.17	6.21	6.28	6.01	5.80	5.93	6.58	6.40	6.59
15	6.24	6.28	6.28	6.17	6.21	6.28	6.00	5.79	5.90	6.53	6.38	6.55
16	6.23	6.27	6.29	6.17	6.20	6.28	6.00	5.78	5.88	6.49	6.37	6.53
17	6.23	6.27	6.28	6.16	6.19	6.27	6.04	5.76	5.87	6.46	6.37	6.50
18	6.23	6.26	6.27	6.15	6.19	6.26	6.14	5.81	5.88	6.43	6.54	6.48
19	6.23	6.25	6.26	6.14	6.18	6.26	6.14	6.23	5.96	6.41	6.71	6.45
20	6.23	6.25	6.25	6.14	6.18	6.25	6.14	6.22	6.13	6.39	6.68	6.43
21	6.23	6.25	6.25	6.14	6.18	6.24	6.14	6.22	6.14	6.38	6.70	6.42
22	6.23	6.25	6.25	6.32	6.22	6.23	6.12	6.22	6.18	6.36	6.73	6.40
23	6.22	6.28	6.25	6.34	6.21	6.22	6.10	6.22	6.20	6.35	6.70	6.40
24	6.22	6.26	6.25	6.33	6.19	6.22	6.09	6.21	6.24	6.38	6.66	6.42
25	6.22	6.24	6.26	6.32	6.17	6.21	6.08	6.20	6.31	6.37	6.62	6.51
26	6.21	6.23	6.25	6.31	6.16	6.20	6.07	6.19	6.37	6.39	6.60	6.62
27	6.20	6.23	6.24	6.32	6.16	6.19	6.06	6.18	6.42	6.52	6.70	6.60
28	6.20	6.28	6.23	6.31	6.15	6.18	6.05	6.17	6.43	6.72	6.77	6.56
29	6.19	6.28	6.24	6.31	---	6.17	6.03	6.16	6.53	6.69	6.71	6.56
30	6.19	6.27	6.24	6.31	---	6.16	6.03	6.14	6.60	6.69	6.65	6.69
31	6.19	---	6.24	6.30	---	6.16	---	6.12	---	6.67	6.61	---
MEAN	6.26	6.28	6.25	6.23	6.22	6.25	6.08	6.01	6.11	6.58	6.55	6.58
MAX	6.37	6.37	6.33	6.34	6.30	6.35	6.15	6.23	6.60	6.90	6.77	6.81
MIN	6.19	6.17	6.21	6.14	6.15	6.15	6.00	5.76	5.87	6.35	6.37	6.40

CAL YR 1988 MEAN 6.33 MAX 7.25 MIN 5.85
WTR YR 1989 MEAN 6.28 MAX 6.90 MIN 5.76

02293241 SAN CARLOS CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°36'11", long 81°57'54", in NE¼ sec.36, T.44 S., R.23 E., Lee County, Hydrologic Unit 03090205, near right bank on upstream side of wingwall of bridge on SE 26th Terr., 300 ft west of Retunda Pkwy, and 3.35 mi upstream of Caloosahatchee River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department bench mark.

REMARKS.--Estimated stage and discharge: Sept. 29, 30. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174 ft^3/s Oct. 12, 1987, gage height, 7.04 ft; no flow for many days during each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41 ft^3/s Sept. 9; gage height, 5.84 ft; no flow for many days, minimum gage height, 4.45 ft May 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	.01	3.0	1.2	2.1	.00	.10	.00	.00	14	7.2	12
2	3.3	.00	2.3	1.1	2.1	.00	.10	.00	.00	13	6.5	14
3	4.5	.00	1.8	.97	2.0	1.6	.02	.00	.00	13	5.9	12
4	4.6	2.1	1.7	.84	2.1	2.1	.00	.00	.00	20	5.3	10
5	4.1	2.8	1.5	.51	2.0	2.1	.00	.00	.00	15	5.0	9.9
6	3.5	3.5	1.4	.35	1.8	2.1	.00	.00	.00	14	4.7	10
7	2.9	3.3	1.2	.26	1.6	2.8	.00	.00	.00	15	4.6	9.6
8	2.5	3.2	1.2	.23	1.5	2.8	.00	.00	.00	12	4.4	12
9	2.2	3.0	1.1	.19	1.3	2.5	.00	.00	.00	9.9	4.1	22
10	2.1	2.6	1.2	.16	.87	2.1	.00	.00	.00	8.7	4.1	30
11	2.0	2.6	1.3	.13	.57	1.8	.00	.00	.00	7.7	4.4	21
12	1.9	2.6	3.9	.10	.42	1.5	.00	.00	.00	7.0	4.1	18
13	1.9	2.6	3.3	.07	.29	1.5	.00	.00	.00	6.6	3.8	15
14	1.5	2.5	2.6	.02	.25	1.5	.00	.00	.00	6.1	4.4	13
15	1.2	2.2	2.5	.00	.19	1.6	.00	.00	.00	5.7	7.6	12
16	1.1	2.1	2.4	.00	.16	1.6	.00	.00	.00	5.8	7.7	10
17	1.0	2.0	2.3	.00	.08	1.4	.00	.00	.00	5.3	7.3	9.6
18	.75	1.9	1.8	.00	.05	1.5	.00	.00	.00	4.9	6.9	8.9
19	.75	1.7	1.5	.00	.03	1.4	.00	.00	.00	4.7	6.8	8.4
20	.73	1.6	1.5	.00	.00	1.1	.00	.00	.00	4.5	7.4	7.9
21	.72	1.5	1.4	.00	.00	.92	.00	.00	.00	4.1	6.8	7.6
22	.71	1.5	1.5	1.5	.02	.74	.00	.00	.00	4.2	6.2	7.1
23	.52	1.8	1.5	1.9	.00	.47	.00	.00	.04	3.8	5.9	6.7
24	.39	1.8	1.5	1.9	.00	.98	.00	.00	1.6	7.8	6.6	6.3
25	.36	1.5	1.6	2.1	.00	1.1	.00	.00	5.8	18	8.0	6.1
26	.25	1.3	1.7	2.0	.00	.92	.00	.00	5.9	17	8.6	6.0
27	.16	1.1	1.5	2.1	.00	.74	.00	.00	5.4	12	7.6	5.8
28	.13	2.9	1.4	2.2	.00	.68	.00	.00	4.7	11	6.8	5.5
29	.09	3.5	1.3	2.1	---	.43	.00	.00	11	9.2	6.2	5.7
30	.04	3.1	1.3	2.0	---	.16	.00	.00	12	8.9	8.1	5.7
31	.05	---	1.3	2.1	---	.10	---	.00	---	8.3	13	---
TOTAL	48.65	62.31	55.5	26.03	19.43	40.24	.22	.00	46.44	297.2	186.0	327.8
MEAN	1.57	2.08	1.79	.84	.69	1.30	.007	.000	1.55	9.59	6.32	10.9
MAX	4.6	3.5	3.9	2.2	2.1	2.8	.10	.00	12	20	13	30
MIN	.04	.00	1.1	.00	.00	.00	.00	.00	.00	3.8	3.8	5.5
AC-FT	96	124	110	52	39	80	.4	.00	92	589	369	650

CAL YR 1988 TOTAL 950.06 MEAN 2.60 MAX 44 MIN .00 AC-FT 1880
WTR YR 1989 TOTAL 1119.82 MEAN 3.07 MAX 30 MIN .00 AC-FT 2220

CALOOSAHATCHEE RIVER

02293241 SAN CARLOS CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.12	4.95	5.14	5.08	5.14	4.90	5.03	4.75	4.92	5.46	5.29	5.39
2	5.13	4.95	5.12	5.08	5.14	4.90	5.03	4.76	4.90	5.44	5.27	5.43
3	5.17	4.93	5.10	5.07	5.14	5.10	5.01	4.73	4.89	5.44	5.25	5.40
4	5.18	5.10	5.09	5.07	5.14	5.15	4.99	4.71	4.93	5.56	5.24	5.36
5	5.16	5.13	5.08	5.04	5.13	5.15	4.98	4.68	4.92	5.46	5.23	5.35
6	5.14	5.15	5.08	5.03	5.12	5.15	4.97	4.68	4.91	5.45	5.22	5.36
7	5.12	5.15	5.08	5.02	5.12	5.18	4.94	4.66	4.89	5.45	5.22	5.35
8	5.10	5.14	5.08	5.02	5.11	5.18	4.92	4.63	4.87	5.39	5.21	5.39
9	5.09	5.13	5.07	5.01	5.10	5.16	4.91	4.60	4.86	5.35	5.20	5.55
10	5.09	5.13	5.08	5.01	5.08	5.15	4.90	4.58	4.85	5.33	5.20	5.70
11	5.08	5.13	5.08	5.00	5.06	5.13	4.89	4.58	4.85	5.30	5.21	5.56
12	5.08	5.13	5.19	5.00	5.05	5.12	4.88	4.55	4.83	5.28	5.20	5.51
13	5.08	5.13	5.16	4.99	5.04	5.12	4.86	4.52	4.81	5.27	5.19	5.46
14	5.07	5.13	5.14	4.98	5.03	5.12	4.84	4.51	4.79	5.26	5.21	5.41
15	5.06	5.11	5.13	4.98	5.02	5.13	4.83	4.50	4.77	5.25	5.29	5.39
16	5.05	5.11	5.13	4.97	5.02	5.12	4.83	4.49	4.74	5.25	5.30	5.36
17	5.05	5.11	5.13	4.96	5.01	5.12	4.86	4.47	4.74	5.24	5.29	5.35
18	5.03	5.10	5.11	4.95	5.00	5.12	4.94	4.52	4.76	5.23	5.28	5.33
19	5.03	5.09	5.09	4.95	5.00	5.12	4.93	5.01	4.83	5.22	5.28	5.32
20	5.03	5.09	5.09	4.93	4.98	5.10	4.92	5.01	4.96	5.21	5.29	5.31
21	5.03	5.08	5.09	4.94	4.97	5.09	4.91	5.01	4.99	5.20	5.28	5.30
22	5.03	5.08	5.09	5.09	4.99	5.08	4.89	5.01	5.02	5.20	5.26	5.29
23	5.02	5.09	5.09	5.12	4.98	5.07	4.87	5.01	5.05	5.19	5.26	5.28
24	5.00	5.10	5.09	5.12	4.95	5.10	4.85	5.00	5.14	5.29	5.27	5.27
25	5.00	5.08	5.10	5.13	4.93	5.11	4.84	5.00	5.30	5.50	5.31	5.26
26	4.99	5.07	5.10	5.12	4.91	5.10	4.83	4.99	5.30	5.49	5.32	5.26
27	4.98	5.06	5.09	5.13	4.90	5.09	4.81	4.98	5.29	5.39	5.30	5.25
28	4.97	5.13	5.09	5.13	4.90	5.09	4.80	4.98	5.27	5.37	5.28	5.24
29	4.97	5.16	5.08	5.14	---	5.07	4.79	4.97	5.40	5.34	5.26	5.25
30	4.96	5.15	5.08	5.14	---	5.04	4.78	4.95	5.43	5.33	5.31	5.25
31	4.96	---	5.08	5.14	---	5.03	---	4.93	---	5.32	5.41	---
MEAN	5.06	5.10	5.10	5.04	5.03	5.10	4.89	4.77	4.97	5.34	5.26	5.36
MAX	5.18	5.16	5.19	5.14	5.14	5.18	5.03	5.01	5.43	5.56	5.41	5.70
MIN	4.96	4.93	5.07	4.93	4.90	4.90	4.78	4.47	4.74	5.19	5.19	5.24

CAL YR 1988 MEAN 5.08 MAX 5.83 MIN 4.48
WTR YR 1989 MEAN 5.09 MAX 5.70 MIN 4.47

02293243 COURTNEY CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°34'39", long 81°59'08", in SW¼ sec 2, T 45 S , R 23 E , Lee County, Hydrologic Unit 03090205, near left bank on upstream side of wing wall of bridge at Mohawk Pkwy, 200 ft west of 5th Ave , and 5 mi upstream from Caloosahatchee River at Cape Coral

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department bench mark.

REMARKS.--Estimated daily discharge: Nov. 1 to Dec. 1, Dec. 12 to Jan. 4. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80 ft^3/s July 20, 1987, gage height, 5.55 ft, no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft^3/s Sept. 8, 9, gage height, 4.75 ft, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.1	23	22
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.0	22	21
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	19	20
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	17	18
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	23	15	17
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	23	13	26
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	12	33
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	26	11	35
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	24	9.0	41
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	21	7.8	37
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	18	7.3	34
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	6.7	31
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	5.5	30
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	6.2	27
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	5.9	25
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	5.1	24
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	4.6	22
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.6	8.6	21
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.3	18	20
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.0	20	18
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.2	19	16
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	22	14
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.9	22	14
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6	20	16
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.7	18	23
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	16	29
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	18	18	27
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	24	26
29	.00	.00	.00	.00	---	.00	.00	.00	.00	22	23	27
30	.00	.00	.00	.00	---	.00	.00	.00	.32	23	20	34
31	.00	---	.00	.00	---	.00	---	.00	---	23	19	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.32	469.9	457.7	748
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.011	15.2	14.8	24.9
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.32	28	24	41
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.1	4.6	14
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.6	932	908	1480

CAL YR 1988 TOTAL 772.68 MEAN 2.11 MAX 36 MIN .00 AC-FT 1530
WTR YR 1989 TOTAL 1675.92 MEAN 4.59 MAX 41 MIN .00 AC-FT 3320

02291243 COURTNEY CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.31				4.55	5.00	4.74	4.71	2.48	4.42	4.47	4.45
2	4.34		4.23		4.57	5.02	4.76	4.72	2.36	4.45	4.45	4.44
3	4.36		4.31		4.59	5.04	4.79	4.73	2.34	4.47	4.41	4.42
4	4.39		4.33		4.61	5.07	4.82	4.72	2.40	4.50	4.37	4.40
5	4.40		4.37	4.76	4.64	5.11	4.84	4.68	2.37	4.55	4.35	4.38
6	4.41		4.38	4.71	4.67	5.14	4.86	4.66	2.37	4.51	4.32	4.51
7	4.51		4.39	4.68	4.68	5.16	4.87	4.64	2.35	4.54	4.29	4.61
8	4.43		4.37	4.67	4.69	5.19	4.89	4.64	2.33	4.51	4.27	4.64
9	4.44		4.36	4.62	4.70	5.21	4.94	4.60	2.34	4.48	4.24	4.72
10	4.44		4.42	4.59	4.73	5.23	4.96	4.58	2.35	4.43	4.22	4.67
11	4.43		4.44	4.57	4.76	5.25	4.97	4.57	2.36	4.39	4.21	4.62
12	4.43			4.56	4.78	5.27	4.98	4.56	2.35	4.37	4.20	4.58
13	4.47			4.55	4.80	5.29	4.99	4.54	2.33	4.34	4.18	4.56
14	4.44			4.54	4.83	5.32	5.00	4.52	2.27	4.36	4.19	4.53
15	4.42			4.49	4.84	5.34	5.02	4.50	2.24	4.34	4.19	4.50
16	4.42			4.47	4.86	5.36	5.03	4.48	2.22	4.32	4.17	4.48
17	4.46			4.47	4.88	5.38	5.04	4.47	2.23	4.28	4.16	4.46
18	4.44			4.47	4.90	5.40	5.05	4.45	2.26	4.26	4.24	4.44
19	4.43			4.48	4.92	5.42	5.06	4.44	2.27	4.23	4.40	4.42
20	4.44			4.49	4.94	5.44	5.07	4.42	2.25	4.21	4.43	4.39
21	4.44			4.49	4.96	5.46	5.08	4.40	2.26	4.19	4.41	4.35
22	4.43			4.51	4.98	5.48	5.09	4.38	2.24	4.17	4.45	4.33
23				4.52	5.00	5.50	5.10	4.36	2.26	4.16	4.45	4.33
24				4.53	5.02	5.52	5.11	4.34	2.28	4.17	4.42	4.37
25				4.54	5.04	5.54	5.12	4.32	2.30	4.18	4.39	4.47
26				4.55	5.06	5.56	5.13	4.30	2.31	4.19	4.41	4.46
27				4.56	5.08	5.58	5.14	4.28	2.32	4.21	4.43	4.44
28				4.57	5.10	5.60	5.15	4.26	2.34	4.23	4.46	4.41
29				4.58		5.62	5.16	4.24	2.36	4.25	4.48	4.38
30				4.59		5.64	5.17	4.22	2.38	4.27	4.49	4.35
31				4.60		5.66		4.20	2.40	4.29	4.50	
MEAN					4.73	5.34	5.03	4.58	2.33	4.37	4.34	4.48
MAX					5.02	5.66	5.17	4.72	2.48	4.55	4.50	4.72
MIN					4.55	5.00	4.74	4.42	2.22	4.17	4.16	4.33

02293245 CAMELOT CANAL AT CONTROL AT CAPE CORAL, FL

LOCATION.--Lat 26°32'35", long 82°00'33", in NE¼ sec.21, T.45 S., R.23 E., Lee County, Hydrologic Unit 03090205, (Pine Island Center Quadrangle), near right bank on upstream side of boat lock, 0.1 mi west of Chiquita Blvd. and 0.3 mi south of El Dorado Parkway at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated gage heights.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 3.72 ft Nov. 23, 1988; minimum, 0.35 ft May 21, 29, 30, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.72 ft Nov. 23; minimum, 0.35 ft May 21, 29, 30.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.38	1.20	1.04	.70	.70	.58	---	.49	.44	---	1.59	1.33
2	1.35	1.21	.97	.72	.69	.59	---	.57	.45	---	1.59	1.32
3	1.42	1.15	.91	.71	.69	.75	---	.54	.46	---	1.52	1.30
4	1.46	1.36	.88	.71	.70	.81	---	.51	.51	---	1.48	1.30
5	1.41	1.50	.85	.68	.70	.80	.57	.51	.55	---	1.48	1.26
6	1.34	1.62	.84	.68	.71	.80	.59	.54	.61	---	1.40	1.24
7	1.28	1.53	.84	.71	.73	.83	.56	.55	.68	---	1.35	1.27
8	1.22	1.44	.85	.72	.74	.78	.54	.52	.75	1.41	1.32	1.30
9	1.17	1.36	.86	.73	.72	.75	.54	.49	.81	1.44	1.30	1.36
10	1.16	1.31	.87	.73	.67	.72	.55	.51	.79	1.42	1.25	1.59
11	1.15	1.29	.90	.72	.64	.67	.56	.52	.74	1.37	1.19	1.54
12	1.21	1.26	1.04	.70	.62	.65	.54	.50	.67	1.30	1.21	1.49
13	1.23	1.26	1.05	.69	.60	.67	.52	.46	.64	1.26	1.34	1.51
14	1.19	1.24	.98	.67	.61	.70	.50	.44	.61	1.23	1.32	1.49
15	1.13	1.20	.91	.66	.61	.74	.50	.44	.58	1.21	1.32	1.49
16	1.11	1.18	.85	.67	.61	.77	.51	.43	.58	1.18	1.31	1.48
17	1.13	1.18	.87	.66	.60	.75	.50	.42	.61	1.16	1.27	1.44
18	1.12	1.15	.91	.65	.60	.74	.48	.41	.63	1.16	1.26	1.40
19	1.17	1.13	.97	.64	.60	.72	.50	.39	.62	1.19	1.24	1.34
20	1.22	1.15	.96	.64	.60	.69	.50	.38	1.09	1.22	1.22	1.29
21	1.30	1.18	.98	.67	.61	.68	.51	.39	---	1.23	1.23	1.23
22	1.37	1.28	.80	.65	.71	.68	.49	.40	---	1.20	1.23	1.20
23	1.40	3.65	.80	.66	.70	.68	.47	.40	---	1.17	1.21	1.20
24	1.42	---	.80	.80	.62	.71	.47	.42	---	1.11	1.19	1.21
25	1.46	---	.80	.76	.58	.68	.48	.42	---	1.06	1.22	1.38
26	1.44	---	.78	.74	.56	---	.49	.41	---	1.06	1.24	1.63
27	1.41	---	.74	.72	.55	---	.48	.39	---	1.17	1.25	1.60
28	1.39	---	.73	.70	.56	---	.48	.38	---	1.50	1.28	1.53
29	1.35	---	.73	.69	---	---	.49	.36	---	1.49	1.29	1.49
30	1.30	---	.71	.69	---	---	.49	.37	---	1.48	1.27	1.56
31	1.26	---	.70	.70	---	---	---	.43	---	1.51	1.28	---
MEAN	1.29	---	.85	.71	.64	---	---	.45	---	---	1.31	1.39
MAX	1.46	---	1.05	.80	.74	---	---	.57	---	---	1.59	1.63
MIN	1.11	---	.70	.64	.55	---	---	.36	---	---	1.19	1.20

02293246 CAMELOT CANAL BELOW CONTROL AT CAPE CORAL, FL

LOCATION.--Lat 26°32'35", long 80°00'32", in NE¼ sec.21, T.45 S., R.23 E., Lee County, Hydrologic Unit 03090205, (Pine Island Quadrangle), near right bank on downstream side of boat lock headwall, 0.1 mi west of Chiquita Blvd. and 0.3 mi south of El Dorado Parkway at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily gage heights. Stage is always tidal. The stage record published is the maximum and minimum tide event for each calender date.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 4.48 ft Nov. 23, 1988; minimum, -1.40 ft Dec. 30, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.48 ft Nov. 23; minimum, -1.15 ft Dec. 2.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL HIGH VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.75	1.56	.80	1.27	1.19	1.38	.90	1.75	1.62	2.11	1.82	1.82
2	1.62	1.26	-.14	1.17	1.20	1.[illegible]	1.12	1.71	1.69	2.15	1.64	1.84
3	1.92	1.60	.81	1.28	1.49	1	1.32	1.08	1.84	2.10	1.55	1.68
4	1.60	2.05	1.11	1.14	1.50	1.[illegible]	1.41	1.43	2.08	1.85	1.49	1.69
5	1.42	2.19	1.38	1.80	1.58	1.53	1.45	1.94	2.06	2.02	1.38	1.56
6	.99	1.93	1.55	1.79	1.73	1.55	1.19	1.81	2.15	1.59	1.35	1.55
7	1.14	1.44	1.69	1.79	1.80	1.59	1.37	1.35	2.14	1.38	1.63	1.61
8	.83	1.42	1.78	1.79	1.61	1.04	1.46	1.55	2.12	1.46	1.72	1.61
9	1.34	1.45	1.84	1.73	.93	.76	1.52	1.63	1.36	1.18	1.74	1.61
10	1.46	1.56	1.71	1.58	.73	1.02	1.49	1.68	.97	1.19	1.53	1.75
11	1.80	1.73	2.08	1.30	1.05	1.00	1.14	1.00	.94	1.37	1.48	1.65
12	2.09	1.72	2.19	1.10	1.13	1.48	.98	.81	1.07	1.39	1.66	1.95
13	1.72	1.91	1.47	.91	1.42	1.79	1.03	.87	1.28	1.61	1.92	2.01
14	1.27	1.50	1.02	1.23	1.20	1.84	1.10	.87	1.31	1.64	2.09	2.11
15	1.11	1.26	1.17	1.37	1.32	1.57	1.20	1.17	1.60	1.73	2.04	2.11
16	1.60	1.65	1.25	1.16	1.06	1.45	1.14	1.04	1.72	1.61	1.95	1.90
17	1.67	1.32	.78	1.19	1.20	1.23	.83	1.18	1.55	1.94	1.90	1.78
18	1.61	1.23	1.07	1.28	1.42	1.18	.93	1.14	1.49	2.17	1.89	1.85
19	1.81	1.75	1.12	1.44	1.44	1.12	1.14	1.21	1.79	2.15	1.72	1.90
20	1.93	1.70	1.63	1.54	1.43	1.19	1.34	1.32	1.97	2.03	1.64	1.71
21	2.19	1.90	1.64	1.58	1.63	1.31	1.30	1.54	1.96	2.01	1.91	1.71
22	2.00	.03	1.65	1.53	1.77	1.35	1.26	1.56	1.91	1.74	1.80	1.85
23	1.95	4.48	1.66	1.09	.61	1.60	1.55	1.57	1.74	1.28	1.73	1.70
24	2.06	1.37	1.51	.83	-.06	1.13	1.56	1.46	1.80	1.24	1.73	1.65
25	2.07	1.32	1.47	.80	.34	.92	1.48	1.37	1.43	1.32	2.01	2.05
26	1.87	1.51	1.09	.81	.83	1.17	1.33	1.10	1.53	1.54	2.03	1.95
27	1.97	1.83	.77	.89	1.44	1.14	1.30	.99	1.71	1.74	2.09	1.65
28	1.90	1.85	1.20	1.13	1.34	1.20	1.51	.96	1.94	1.73	1.98	1.41
29	1.66	.42	.82	.90	---	1.32	1.23	1.06	1.86	1.95	1.98	1.55
30	1.52	.98	.91	1.44	---	1.47	1.37	1.17	1.95	1.97	1.96	1.69
31	1.43	---	1.23	1.32	---	1.41	---	1.42	---	1.90	2.00	---
MEAN	1.65	1.73	1.30	1.30	1.23	1.33	1.27	1.31	1.69	1.71	1.79	1.76
MAX	2.19	4.48	2.19	1.80	1.80	1.84	1.56	1.94	2.15	2.17	2.09	2.11
MIN	.83	.42	-.14	.80	-.06	.76	.83	.81	.94	1.18	1.35	1.41

CAL YR 1988 MEAN .24 MAX 4.48 MIN -1.35
WTR YR 1989 MEAN 1.51 MAX 4.48 MIN -.14

02293246 CAMELOT CANAL BELOW CONTROL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
TIDAL LOW VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.25	- 26	.19	- 08	- 15	- 28	.21	- .17	09	- 01	54
2	.28	.01	-1 15	- 10	- 32	- 22	- 71	- 15	- 28	16	12	43
3	.91	.37	- 96	- 24	- 51	- 08	- 32	- 43	- 11	21	12	46
4	.24	1.02	- 25	- 30	- 43	- 05	01	- 31	- 01	07	28	46
5	.19	1.12	- 26	- 74	- 26	- 24	- 02	- 08	.10	14	26	21
6	- .14	62	- 34	- 12	- 20	- 19	- 80	10	07	03	33	31
7	- 13	- 02	- 19	- 25	00	- 54	- 40	- 22	27	00	53	29
8	- 50	- 24	- 11	- 26	13	- 63	- 33	- 57	33	04	57	29
9	- 18	- 32	- 12	- 32	- 69	- 69	- 22	- 35	47	37	49	10
10	07	- 13	- 26	- 23	- 61	- 74	- 30	- 05	15	35	16	14
11	.16	- 13	05	- 40	- 60	- 78	- 21	07	- 03	26	10	04
12	.40	- 12	17	- 11	- 41	- 62	- 55	- 28	14	13	08	25
13	- 04	07	- 21	- 11	- 36	- 09	- 37	- 17	20	16	22	29
14	- 46	- 22	- 57	- 47	- 25	14	- 44	- 10	- 01	07	30	44
15	- 27	- 29	10	- 1 05	- 40	20	- 02	08	13	01	21	.41
16	.10	32	00	- 21	- 40	- 05	10	- 10	14	- 13	13	34
17	.10	11	- 18	- 48	- 56	- 09	- 08	- 13	- 19	03	06	10
18	.23	27	- 25	- 50	- 44	- 15	- 11	- 35	- 39	19	32	14
19	.36	13	- 46	- 52	- 29	- 20	- 08	- 41	- 13	29	19	14
20	.54	39	- 49	- 36	- 15	- 14	- 13	- 29	02	27	20	03
21	.67	03	- 30	- 42	29	09	14	- 21	02	32	45	15
22	.57	02	- 41	- 27	02	15	- 27	- 21	01	33	23	34
23	.40	75	- 31	- 62	- 59	33	- 25	- 12	08	22	17	30
24	.34	- 61	- 37	- 61	- 38	30	- 09	- 18	22	06	20	.41
25	15	- 54	- 34	- 45	- 86	- 45	- 06	- 27	32	- 02	35	80
26	- 11	- 14	- 50	- 30	- 67	- 43	13	- 23	40	13	23	.55
27	07	14	- 53	- 08	- 24	28	- 14	- 37	36	05	42	.34
28	- 01	- 37	- 08	- 06	14	- 35	- 08	- 21	36	- 05	38	24
29	- 10	- 85	- 13	11	---	- 27	01	- 02	06	04	37	20
30	00	02	- 03	- 16	---	- 10	- 08	01	01	10	55	34
31	16	---	13	- 10	---	04	---	- 13	---	04	61	---
MEAN	.13	.05	- 32	- 25	- 36	- 22	- 22	- 18	08	13	28	30
MAX	.91	1.12	17	27	29	33	10	21	47	37	61	80
MIN	- 50	- 95	-1 15	- 74	- 88	- 74	- 80	- 57	- 39	- 13	- 01	00

WTR YR 1989 MEAN - 05 MAX 1 12 MIN -1 15

02293345 SHADROE CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°39'05", long 82°02'10", in SW¼ sec.8 T.44 S., R.23 E., Lee County, Hydrologic Unit 03100103, (Matlacha Quadrangle), near right bank on downstream side of wingwall of bridge on Embers Parkway, 75 ft west of N.W. 29th Place, 275 ft east of State Road 765 (Burnt Store Road) and 0.3 mi upstream of weir, at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department Bench Mark.

REMARKS.--No estimated daily stage and discharge. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 147 ft^3/s Aug. 31, 1947, gage height, 4.21 ft, no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft^3/s Nov. 27, gage height, 2.47 ft, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.1	e.0	.2	.1	e.0	e.0	e.0	.73	.15	.00	.16	4.7	12
2	e.1	.16	.1	.14	e.0	e.0	e.0	.47	.34	.00	.11	3.7	14
3	e.1		.11	.4	e.0	e.0	.1	.14	.28	.00	.8.0	1.2	12
4	e.1	.12	.1	e.0	e.0	e.0	e.0	.42	.22	.00	.7.1	.93	11
5	e.1	.46	.1	e.0	e.0	e.0	e.0	.33	.07	.00	.6.8	.74	11
6	e.1	.47	.1	e.0	e.0	e.0	e.0	.31	.05	.00	.8.3	.62	15
7	e.1	.41	.1	e.0	e.0	e.0	e.0	.41	.05	.00	.8.4	.57	15
8	e.1	.14	.1	e.0	e.0	e.0	e.0	.44	.05	.00	.7.9	.50	16
9	e.1	.12	.1	e.0	e.0	e.0	e.0	.40	.05	.00	.2.0	.46	26
10	e.1	.6	.1	e.0	e.0	e.0	e.0	.49	.05	.00	.1.1	.48	21
11	e.1	1.2	.1	e.0	e.0	e.0	e.0	.36	.05	.00	.97	.45	13
12	3.1	.67	.11	e.0	e.0	e.0	e.0	.34	.05	.00	.5.6	.47	11
13	2.3	.66	.1	e.0	e.0	.07	e.0	.34	.05	.00	.6.5	.60	18
14	1.8	.28	.1	e.0	e.0	e.0	e.0	.28	.05	.00	.3.0	.68	12
15	1.5	.13	.1	e.0	e.0	e.0	e.0	.47	.05	.00	.1.7	.56	9.2
16	e.1	.10	.1	e.0	.08	e.0	e.0	.40	.05	.00	.84	.50	7.9
17	.84	.10	.1	e.0	.24	e.0	e.0	.33	.05	.00	.83	.48	7.4
18	.53	.10	.1	e.0	e.0	e.0	e.0	.34	.05	.00	.75	3.5	6.6
19	.47	.10	.1	e.0	.22	e.0	e.0	.31	.28	.00	.82	5.5	6.2
20	1.2	.10	.1	e.0	.14	e.0	e.0	.54	.46	.00	.86	2.8	4.4
21	e.8	.10	.1	e.0	e.0	e.0	e.0	.39	.43	.16	.75	4.7	2.9
22	1.7	.21	.1	e.0	e.0	e.0	e.0	.53	.38	4.5	.68	7.5	2.4
23	.56	.42	.1	e.0	e.0	e.0	e.0	.47	.34	6.4	.65	5.4	6.9
24	.47	.13	.1	e.0	e.0	e.0	e.0	.37	.25	6.6	.75	2.1	9.9
25	.44	.3.4	.2	e.0	e.0	e.0	e.0	.41	.14	.28	4.6	.71	2.0	26
26	.32	.16	.1	e.0	e.0	e.0	e.0	.33	.14	.25	6.5	.66	3.5	27
27	.76	.93	.1	e.0	e.0	e.0	e.0	.34	.14	.45	.58	5.7	.75	3.1	17
28	.63	.5.6	.1	e.0	e.0	e.0	e.0	.30	.14	.45	.58	5.7	.75	3.1	17
29	.52	4.5	.1	e.0	e.0		e.0	.30	.14	.41	.60	2.6	.74	.16	12
30	.52	2.4	.1	e.0	e.0		e.0	.32	.14	.29	.00	.11	.78	.12	15
31	.68		.1	e.0	e.0		e.0		.14	.43	.33	.18	.88	7.7	22
TOTAL	79.45	267.46	35.1	14.14	74.04	74.07	21.84	1.84	65.36	103.92	106.34	390.8
MEAN	2.56	8.92	1.13	.456	2.65	2.39	.728	.059	2.18	3.35	3.43	13.0
MAX	6.4	67	.11	.4	.24	.07	e.0	.73	.43	.16	.16	27
MIN	.52	.10	.1	e.0	e.0	e.0	e.0	e.0	.14	.00	.65	.45	2.4
AC-FT	158	530	69.6	28.0	147	147	43.3	3.6	130	206	211	775

CAL YR 1988 TOTAL 1436.41 MEAN 3.91 MAX 44 MIN .03 AC-FT 2850
WTR YR 1989 TOTAL 1402.42 MEAN 3.84 MAX 67 MIN .00 AC-FT 2780

02293345 SHADROE CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.54	2.51	2.48	2.47	2.50	2.47	2.47	2.44	2.34	2.62	2.59	2.59
2	2.54	2.44	2.47	2.47	2.50	2.47	2.47	2.44	2.32	2.59	2.54	2.61
3	2.54	2.38	2.47	2.47	2.50	2.54	2.44	2.43	2.30	2.57	2.52	2.59
4	2.54	2.59	2.47	2.47	2.51	2.52	2.44	2.43	2.28	2.56	2.51	2.59
5	2.54	2.73	2.47	2.47	2.50	2.50	2.47	2.42	2.27	2.56	2.50	2.59
6	2.53	2.85	2.47	2.47	2.49	2.50	2.47	2.41	2.26	2.58	2.49	2.61
7	2.53	2.76	2.47	2.48	2.49	2.52	2.46	2.40	2.25	2.57	2.49	2.62
8	2.53	2.67	2.47	2.48	2.49	2.51	2.46	2.37	2.23	2.54	2.48	2.62
9	2.52	2.59	2.48	2.47	2.49	2.49	2.44	2.35	2.22	2.53	2.48	2.66
10	2.52	2.54	2.48	2.47	2.48	2.49	2.44	2.34	2.21	2.52	2.48	2.65
11	2.52	2.52	2.49	2.47	2.48	2.49	2.44	2.34	2.20	2.52	2.48	2.60
12	2.52	2.49	2.54	2.47	2.47	2.49	2.44	2.33	2.19	2.55	2.48	2.59
13	2.51	2.49	2.50	2.47	2.47	2.49	2.44	2.31	2.18	2.56	2.49	2.63
14	2.50	2.47	2.49	2.48	2.47	2.50	2.44	2.30	2.16	2.54	2.48	2.60
15	2.50	2.43	2.49	2.47	2.48	2.50	2.44	2.29	2.14	2.53	2.48	2.58
16	2.50	2.41	2.49	2.46	2.48	2.50	2.45	2.29	2.13	2.52	2.48	2.57
17	2.50	2.41	2.49	2.46	2.48	2.50	2.47	2.28	2.16	2.51	2.48	2.57
18	2.50	2.38	2.48	2.47	2.48	2.49	2.51	2.28	2.18	2.50	2.51	2.56
19	2.51	2.36	2.48	2.47	2.48	2.49	2.50	2.49	2.21	2.51	2.55	2.58
20	2.51	2.38	2.48	2.46	2.47	2.49	2.48	2.44	2.30	2.51	2.53	2.59
21	2.52	2.41	2.48	2.47	2.47	2.48	2.47	2.43	2.35	2.50	2.50	2.54
22	2.52	2.44	2.48	2.65	2.49	2.48	2.46	2.43	2.40	2.49	2.47	2.54
23	2.51	2.72	2.49	2.55	2.49	2.48	2.47	2.43	2.54	2.48	2.55	2.56
24	2.50	2.55	2.48	2.52	2.48	2.49	2.44	2.42	2.54	2.50	2.53	2.56
25	2.50	2.49	2.48	2.52	2.47	2.49	2.44	2.41	2.49	2.50	2.53	2.68
26	2.50	2.47	2.48	2.52	2.47	2.47	2.43	2.44	2.54	2.48	2.54	2.64
27	2.50	2.47	2.47	2.51	2.47	2.47	2.43	2.44	2.55	2.50	2.56	2.63
28	2.49	2.50	2.47	2.51	2.47	2.47	2.43	2.44	2.53	2.50	2.62	2.60
29	2.49	2.50	2.48	2.50	---	2.47	2.43	2.44	2.52	2.50	2.59	2.61
30	2.48	2.48	2.48	2.50	---	2.48	2.44	2.37	2.48	2.51	2.57	2.66
31	2.49	---	2.47	2.50	---	2.48	---	2.44	---	2.51	2.56	---
MEAN	2.51	2.51	2.48	2.49	2.48	2.49	2.45	2.41	2.33	2.53	2.52	2.60
MAX	2.54	2.85	2.54	2.65	2.51	2.54	2.51	2.44	2.70	2.62	2.62	2.68
MIN	2.48	2.36	2.47	2.46	2.47	2.48	2.43	2.28	2.13	2.48	2.48	2.53

CAL YR 1988 MEAN 2.49 MAX 3.01 MIN 2.27
WTR YR 1989 MEAN 2.48 MAX 2.85 MIN 2.13

02293346 HORSESHOE CANAL AT CAPE CORAL, FL

LOCATION --Lat 26°40'49", long 82°02'19", in SW¼ sec.5, T.44 S., R.23 E., Lee County, Hydrologic Unit 03100103, (Matlacha Quadrangle), on left bank, 100 ft north of Diplomat Parkway and 200 ft east of State Road 765 (Burnt Store Road) in Cape Coral.

DRAINAGE AREA --Indeterminate

PERIOD OF RECORD --January 1987 to current year

GAGE --Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department bench mark.

REMARKS --No estimated daily stage and discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD --Maximum discharge, 617 ft^3/s Oct. 12, 1987, gage height, 4.27 ft, no flow for many days during 1988, 1989 water years.

EXTREMES FOR CURRENT YEAR --Maximum discharge, 276 ft^3/s June 21, gage height, 3.64 ft, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	2.0	2.0	1.6	2.7	1.4	1.8	.46	.66	101	74	26
2	11	1.9	2.2	1.7	2.6	1.4	.32	.47	.35	108	57	23
3	15	1.9	2.3	1.6	2.3	4.6	.22	.29	.05	95	41	31
4	18	.28	2.2	1.5	2.2	1.8	1.1	.11	.01	129	29	36
5	19	19	2.1	1.4	3.5	4.6	1.3	.02	.00	92	23	31
6	14	13	2.1	1.4	2.3	3.3	.41	.00	.00	68	15	28
7	12	11	2.3	1.4	2.4	2.6	.41	.00	.00	65	7.9	32
8	11	9.6	2.5	1.4	2.6	2.3	.31	.00	.00	44	6.0	25
9	10	8.0	2.4	.37	2.5	3.2	.04	.00	.00	31	4.8	21
10	9.8	7.7	2.7	1.2	1.4	2.6	.02	.00	.00	25	4.0	18
11	9.5	7.4	3.1	1.5	1.6	6.0	1.1	.00	.00	19	3.8	14
12	8.9	6.4	5.2	1.1	1.3	4.4	.69	.00	.00	17	3.8	15
13	8.5	5.6	3.3	.64	2.1	3.3	.47	.00	.00	14	4.9	20
14	8.0	5.4	3.2	.47	2.1	3.2	.37	.00	.00	12	23	12
15	6.6	5.1	3.1	.74	2.0	3.0	1.2	.00	.00	10	22	9.7
16	7.0	4.3	2.6	.56	1.8	3.0	1.3	.00	.00	8.5	15	8.0
17	6.6	4.0	2.5	.61	1.3	2.2	1.1	.00	.00	7.2	11	7.0
18	6.3	3.7	2.3	.44	1.3	2.0	.86	.00	.00	6.4	17	6.1
19	6.0	3.0	2.2	.44	1.5	2.8	2.3	.11	3.7	6.3	17	5.3
20	5.5	2.9	2.9	.30	1.4	2.9	1.8	.12	.27	5.2	18	4.7
21	5.4	2.7	2.5	1.1	1.2	2.5	.96	6.8	.69	4.9	79	3.5
22	5.2	3.7	2.4	.13	3.1	2.6	.64	4.8	.54	4.3	208	3.4
23	5.0	.35	2.3	6.3	1.8	2.2	.35	4.0	.32	4.3	112	5.1
24	4.6	4.4	2.4	4.5	1.3	2.1	.31	3.3	.27	6.2	58	5.5
25	4.0	3.8	2.6	3.9	1.3	1.9	.25	2.8	.25	5.9	38	15
26	3.6	3.3	2.6	1.4	1.2	1.7	.14	2.3	.25	4.7	30	20
27	3.4	3.2	2.5	3.5	1.2	1.7	.18	2.0	.28	5.1	59	14
28	3.2	4.0	2.0	1.4	2.3	1.6	.16	2.0	.24	6.9	66	11
29	3.1	3.7	1.8	3.3		1.4	.12	2.0	.48	35	48	11
30	2.4	2.3	1.9	3.1		1.2	.56	1.8	.64	63	32	10
31	2.2	---	1.8	2.7		.98	---	1.5	---	69	24	---
TOTAL	294.5	213.4	76.1	64.87	57.0	87.38	25.58	58.24	433.77	1072.9	1153.2	472.3
MEAN	7.74	7.11	2.52	2.25	2.04	2.82	.86	1.88	14.5	34.6	37.2	15.7
MAX	19	35	5.2	13	3.1	6.6	2.3	12	69	129	208	36
MIN	4.2	1.9	1.8	.30	1.2	.98	.04	.02	.00	4.3	3.8	3.4
AC-FT	476	423	151	129	113	173	51	116	860	2130	2290	937

CAL YR 1988 TOTAL 5501.80 MEAN 15.2 MAX 154 MIN .00 AC-FT 11010
WTR YR 1989 TOTAL 3961.64 MEAN 10.9 MAX 208 MIN .00 AC-FT 7860

02293346 HORSESHOE CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.72	2.66	2.62	2.61	2.61	2.59	2.59	2.59	2.53	3.20	3.11	2.88
2	2.72	2.66	2.61	2.60	2.61	2.59	2.57	2.62	2.52	3.22	3.04	2.86
3	2.75	2.66	2.61	2.60	2.62	2.68	2.56	2.61	2.50	3.18	2.98	2.91
4	2.76	2.86	2.61	2.60	2.61	2.65	2.57	2.57	2.49	3.24	2.90	2.94
5	2.76	2.78	2.61	2.60	2.62	2.63	2.58	2.48	2.47	3.18	2.86	2.91
6	2.75	2.76	2.61	2.60	2.61	2.62	2.57	2.47	2.45	3.08	2.81	2.90
7	2.73	2.74	2.61	2.60	2.61	2.63	2.55	2.46	2.43	3.07	2.74	2.92
8	2.72	2.73	2.62	2.60	2.61	2.63	2.54	2.44	2.42	2.98	2.72	2.88
9	2.72	2.72	2.62	2.59	2.61	2.62	2.53	2.42	2.39	2.91	2.71	2.85
10	2.71	2.71	2.62	2.59	2.60	2.61	2.52	2.41	2.37	2.87	2.70	2.83
11	2.71	2.71	2.63	2.59	2.60	2.61	2.52	2.39	2.35	2.83	2.70	2.80
12	2.70	2.70	2.65	2.58	2.60	2.61	2.53	2.38	2.33	2.82	2.71	2.81
13	2.70	2.69	2.63	2.58	2.60	2.61	2.53	2.38	2.30	2.80	2.71	2.84
14	2.70	2.69	2.63	2.58	2.60	2.61	2.52	2.38	2.28	2.78	2.68	2.79
15	2.69	2.68	2.63	2.57	2.6	2.61	2.52	2.34	2.25	2.77	2.69	2.76
16	2.69	2.67	2.62	2.57	2.60	2.61	2.52	2.33	2.23	2.75	2.81	2.75
17	2.69	2.67	2.62	2.57	2.59	2.61	2.48	2.31	2.26	2.74	2.78	2.74
18	2.69	2.67	2.61	2.56	2.59	2.61	2.50	2.30	2.29	2.73	2.82	2.73
19	2.69	2.66	2.61	2.56	2.59	2.61	2.50	2.43	2.41	2.73	2.82	2.72
20	2.69	2.65	2.62	2.56	2.59	2.60	2.50	2.48	2.37	2.72	2.83	2.71
21	2.69	2.65	2.62	2.56	2.58	2.61	2.50	2.52	2.43	2.72	3.06	2.69
22	2.68	2.67	2.62	2.57	2.60	2.61	2.54	2.60	3.03	2.70	3.02	2.69
23	2.68	2.83	2.62	2.58	2.61	2.59	2.49	2.53	2.88	2.70	3.24	2.71
24	2.68	2.65	2.62	2.64	2.59	2.59	2.50	2.54	2.66	2.74	3.04	2.72
25	2.68	2.64	2.62	2.63	2.59	2.58	2.50	2.57	2.64	2.72	2.96	2.80
26	2.67	2.63	2.62	2.64	2.57	2.58	2.50	2.56	2.64	2.72	2.90	2.84
27	2.67	2.63	2.62	2.62	2.58	2.58	2.51	2.56	2.66	2.74	3.03	2.80
28	2.67	2.64	2.61	2.62	2.59	2.58	2.52	2.56	2.64	2.74	3.09	2.77
29	2.67	2.64	2.61	2.62		2.58	2.52	2.56	2.66	2.83	3.03	2.79
30	2.67	2.62	2.61	2.62		2.57	2.53	2.56	2.74	3.06	2.92	2.77
31	2.66	---	2.61	2.61		2.57		2.55	---	3.03	2.87	---
MEAN	2.70	2.69	2.62	2.61	2.61	2.60	2.53	2.49	2.57	2.86	2.90	2.80
MAX	2.76	2.86	2.65	2.64	2.62	2.68	2.59	2.62	3.03	3.24	3.24	2.94
MIN	2.66	2.62	2.61	2.56	2.57	2.57	2.48	2.34	2.23	2.70	2.70	2.69

CAL YR 1988 MEAN 2.68 MAX 3.31 MIN 2.41
WTR YR 1989 MEAN 2.67 MAX 3.52 MIN 2.23

02293347 HERMOSA CANAL AT CAPE CORAL, FL

LOCATION --Lat 26°40'08", long 82°02'18", in SW¼ sec.5, T.44 S., R.23 E., Lee County, Hydrologic Unit 03100103, (Matlacha Quadrangle), on right bank, 150 ft upstream of bridge on State Road 765 (Burnt Store Road) and south of NW 9th Terrace in Cape Coral.

DRAINAGE AREA --Indeterminate.

PERIOD OF RECORD --January 1987 to current year.

GAGE --Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. State Road Department bench mark.

REMARKS --No estimated daily stage and discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD --Maximum daily discharge, 370 ft^3/s Oct. 12, 1987, maximum gage height, 4.00 ft July 19, 1987, no flow for some days each year.

EXTREMES FOR CURRENT YEAR --Maximum daily discharge, 137 ft^3/s Aug. 21, 22, maximum gage height, 3.38 ft Aug. 21, 22, no flow for some days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	2.3	1.0	87	7.7	2.5	8.7	1.7	78	95	89	59
2	12	1.6	94	35	8.4	4.1	7.4	1.0	70	87	79	54
3	14	1.2	87	38	6.2	14	6.8	87	65	84	68	58
4	16	81	1.1	74	7.4	16	6.2	33	62	108	60	60
5	17	17	1.1	66	7.6	12	7.0	80	53	89	53	60
6	16	12	1.1	55	7.1	7.4	6.7	67	52	83	46	59
7	13	9.6	1.1	47	6.7	11	6.0	54	47	86	40	62
8	12	7.8	1.1	5.6	6	10	5.6	37	47	73	37	59
9	11	7.2	1.0	4.7	7.7	10	5.8	44	34	63	34	57
10	10	6.8	1.1	3.9	8.7	10	7.4	32	30	57	33	48
11	9.5	6.6	4.0	2.4	4.9	11	7.1	25	29	50	33	43
12	8.5	6.3	1.0	2.2	2.6	10	7.0	20	25	53	33	42
13	7.3	5.9	1.4	1.8	1.1	10	6.5	20	20	47	35	54
14	6.4	5.1	2.3	1.6	3.6	11	7.0	20	20	41	55	39
15	5.9	5.0	2.2	1.1	3.4	10	7.8	20	20	38	55	35
16	5.4	4.3	1.8	1.1	2.6	10	8.9	20	20	34	49	32
17	5.0	3.6	1.7	1.5	2.6	11	7.3	20	06	32	46	30
18	4.7	4.3	1.1	1.2	1.9	10	6.6	05	27	31	54	29
19	4.1	3.9	1.1	1.3	2.2	10	7.1	14	17	31	55	29
20	4.6	3.1	1.1	1.2	1.9	9.8	5.8	12	27	29	54	27
21	4.1	3.2	1.1	3.6	1.1	8.4	4.6	6.7	57	28	81	26
22	3.8	4.3	1.4	11	6.1	8.1	4.8	4.2	74	27	137	25
23	4.3	32	1.0	20	5.1	7.2	3.1	2.8	53	28	107	26
24	3.2	1.8	1.0	14	4.7	8.1	2.7	1.7	50	33	82	31
25	3.7	92	1.0	13	3.6	7.9	2.1	1.4	47	32	69	46
26	3.3	84	1.0	12	3.2	7.3	1.8	1.1	53	29	62	55
27	3.2	84	1.0	10	4.2	6.1	37	1.1	50	29	84	45
28	3.3	2.1	55	9.1	3.2	8.0	33	1.1	43	31	93	39
29	2.8	1.0	32	8.7	---	7.7	30	1.0	15	59	79	38
30	2.6	94	85	8.1	---	8.6	2.5	96	76	79	63	40
31	2.8	---	83	7.8	---	8.7	---	82	---	82	56	---
TOTAL	212.9	193.1	451.7	367.99	104.5	287.2	124.05	56.43	628.65	1706	1921	1310
MEAN	7.41	6.84	1.47	6.42	4.38	9.69	4.14	1.82	21.0	55.0	62.0	43.7
MAX	17	92	94	87	8.4	16	8.7	14	78	108	137	62
MIN	2.6	84	1.0	1.1	1.1	6.8	1.8	1.0	.00	27	33	25
AC-FT	422	377	91	730	207	569	246	112	1250	3380	3810	2600

CAL YR 1988 TOTAL 2666.20 MEAN 15.5 MAX 77 MIN 1.6 AC-FT 11230
WTR YR 1989 TOTAL 6614.26 MEAN 18.6 MAX 137 MIN .00 AC-FT 13490

02293347 HERMOSA CANAL AT CAPE CORAL, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.69	2.61	2.54	2.54	2.61	2.57	2.59	2.50	2.49	3.08	3.04	2.86
2	2.68	2.60	2.54	2.54	2.62	2.57	2.58	2.49	2.48	3.09	2.98	2.83
3	2.70	2.60	2.53	2.53	2.61	2.67	2.57	2.49	2.47	3.07	2.91	2.85
4	2.71	2.79	2.54	2.53	2.61	2.66	2.57	2.48	2.47	3.16	2.86	2.97
5	2.72	2.70	2.54	2.53	2.61	2.63	2.58	2.47	2.46	3.10	2.82	2.86
6	2.71	2.66	2.54	2.52	2.61	2.62	2.57	2.45	2.46	3.04	2.77	2.86
7	2.70	2.64	2.54	2.53	2.60	2.64	2.56	2.44	2.45	3.04	2.74	2.88
8	2.69	2.63	2.54	2.57	2.59	2.64	2.56	2.42	2.45	2.94	2.72	2.86
9	2.69	2.63	2.54	2.56	2.59	2.62	2.55	2.40	2.43	2.88	2.70	2.84
10	2.68	2.62	2.54	2.56	2.58	2.62	2.56	2.39	2.42	2.85	2.69	2.80
11	2.67	2.62	2.54	2.56	2.57	2.62	2.54	2.38	2.41	2.80	2.69	2.76
12	2.67	2.62	2.58	2.56	2.57	2.61	2.54	2.37	2.40	2.82	2.69	2.75
13	2.66	2.61	2.56	2.56	2.58	2.60	2.54	2.35	2.38	2.78	2.71	2.82
14	2.65	2.61	2.55	2.56	2.59	2.61	2.54	2.34	2.36	2.75	2.83	2.70
15	2.64	2.61	2.55	2.56	2.59	2.61	2.54	2.34	2.34	2.72	2.83	2.70
16	2.64	2.61	2.55	2.55	2.57	2.61	2.54	2.33	2.34	2.70	2.79	2.69
17	2.64	2.60	2.55	2.55	2.57	2.62	2.54	2.32	2.38	2.69	2.77	2.68
18	2.64	2.61	2.54	2.55	2.57	2.61	2.56	2.33	2.41	2.68	2.83	2.67
19	2.63	2.60	2.54	2.56	2.57	2.61	2.57	2.61	2.52	2.68	2.83	2.66
20	2.64	2.60	2.54	2.55	2.57	2.61	2.55	2.59	2.68	2.67	2.83	2.66
21	2.63	2.60	2.54	2.57	2.55	2.6	2.54	2.55	2.86	2.66	2.99	2.64
22	2.62	2.60	2.54	2.76	2.60	2.6	2.54	2.53	2.85	2.65	3.33	2.64
23	2.63	2.79	2.54	2.68	2.58	2.6	2.53	2.52	2.82	2.66	3.15	2.66
24	2.62	2.68	2.54	2.66	2.58	2.6	2.51	2.51	2.80	2.69	3.00	2.66
25	2.62	2.55	2.54	2.64	2.57	2.6	2.51	2.51	2.78	2.69	2.92	2.77
26	2.62	2.54	2.54	2.61	2.57	2.6	2.51	2.51	2.82	2.67	2.88	2.83
27	2.62	2.54	2.54	2.62	2.57	2.6	2.51	2.51	2.81	2.67	3.01	2.77
28	2.62	2.56	2.53	2.62	2.57	2.6	2.49	2.51	2.79	2.68	3.06	2.73
29	2.61	2.55	2.53	2.62		2.6	2.49	2.51	2.86	2.86	2.98	2.72
30	2.61	2.54	2.54	2.61		2.6	2.51	2.50	2.97	2.98	2.88	2.74
31	2.61	---	2.54	2.61		2.6	---	2.50	---	3.00	2.84	---
MEAN	2.65	2.61	2.54	2.58	2.59	2.63	2.54	2.46	2.58	2.83	2.87	2.76
MAX	2.72	2.79	2.58	2.76	2.62	2.67	2.59	2.61	2.97	3.16	3.33	2.88
MIN	2.61	2.54	2.53	2.52	2.57	2.6	2.49	2.32	2.34	2.65	2.69	2.64

WTR YR 1989 MEAN 2.64 MAX 3.33 MIN 2.32

264437081550100 GATOR SLOUGH AT U.S. 41 NEAR FT. MYERS, FL

LOCATION (REVISED).--Lat 26°44'37", long 81°55'01", in SW¼ sec.9, T.43 S., R.24 E., Lee County, Hydrologic Unit 03100103, 200 ft upstream of bridge on U.S. Highway 41, 6.3 mi north of Ft. Myers and about 11 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--1973 to 1984 (annual maximum gage heights only), June 1984 to current year. Prior to 1984, published as Gator Slough near Ft. Myers, FL.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to April 26, 1988, at site 200 ft downstream on upstream side of bridge on U.S. Highway 41 at datum -1.07 ft lower.

REMARKS.--No estimated daily stage and discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290 ft^3/s July 14, 1988, gage height, 18.58 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft^3/s July 4, gage height, 18.91 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.00	.00	.00	.00	.00	.00	---	.00	27	.01	.00
2	1.6	.00	.00	.00	.00	.00	.00	---	.00	46	.00	.92
3	8.3	.00	.00	.00	.00	.00	.00	---	.00	56	.00	11
4	7.1	.07	.00	.00	.00	.00	.00	---	.00	88	.00	15
5	5.2	.11	.00	.00	.00	.00	.00	---	.00	45	.00	4.9
6	4.0	.08	.00	.00	.00	.00	.00	.00	.00	23	.00	1.2
7	2.8	.05	.00	.00	.00	.00	.00	.00	.00	15	.07	.23
8	2.1	.03	.00	.00	.00	.00	.00	.00	.00	7.3	28	.06
9	1.6	.01	.00	.00	.00	.00	.00	.00	.00	4.1	31	.08
10	1.3	.00	.00	.00	.00	.00	.00	.00	.00	2.7	8.5	.03
11	1.2	.00	.00	.00	.00	.00	.00	.00	.00	1.3	1.8	.01
12	1.0	.00	.00	.00	.00	.00	.00	.00	.00	.23	.36	.00
13	.94	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
14	.81	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.71	.00	.00	.00	.00	.00	.00	.00	.00	.00	21	.00
16	.64	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00
17	.61	.00	.00	.00	.00	.00	.00	.00	.00	.00	18	.00
18	.47	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	.00
19	.33	.00	.00	.00	.00	.00	.00	.00	.00	.00	18	.00
20	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.4	.00
21	.13	.00	.00	.00	.00	.00	.00	.00	.01	.00	3.3	.00
22	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
23	.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.00
24	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00
25	.03	.00	.00	.00	.00	.00	---	.00	.00	23	.05	.00
26	.01	.00	.00	.00	.00	.00	---	.00	.01	36	.03	.05
27	.00	.00	.00	.00	.00	.00	---	.00	.09	31	.00	.03
28	.00	.00	.00	.00	.00	.00	---	.00	.46	16	.00	.01
29	.00	.00	.00	.00	---	.00	---	.00	20	9.2	.00	.00
30	.00	.00	.00	.00	---	.00	---	.00	30	2.7	.00	.01
31	.00	---	.00	.00	---	.00	---	.00	---	.27	.00	---
TOTAL	41.57	.35	.00	.00	.00	.00	---	---	50.57	433.80	194.00	33.53
MEAN	1.34	.012	.000	.000	.000	.000	---	---	1.69	14.0	6.26	1.12
MAX	8.3	.11	.00	.00	.00	.00	---	---	30	88	36	15
MIN	.00	.00	.00	.00	.00	.00	---	---	.00	.00	.00	.00
AC-FT	82	.7	.00	.00	.00	.00	---	---	100	860	385	67

CAL YR 1988 TOTAL 2932.69 MEAN 8.01 MAX 175 MIN .00 AC-FT 5820

264437081550100 GATOR SLOUGH AT U.S. 41 NEAR FT. MYERS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.76	15.66	15.66	15.64	15.68	15.62	15.64	---	15.51	17.13	15.77	15.69
2	15.86	15.66	15.65	15.63	15.68	15.62	15.63	---	15.51	17.44	15.67	15.92
3	16.27	15.65	15.65	15.63	15.67	15.73	15.63	---	15.50	17.60	15.63	16.54
4	16.22	15.86	15.65	15.63	15.66	15.71	15.63	---	15.50	17.97	15.63	16.66
5	16.14	15.90	15.64	15.62	15.65	15.70	15.63	---	15.50	17.53	15.65	16.33
6	16.06	15.87	15.64	15.62	15.63	15.70	15.63	15.57	15.50	17.16	15.72	16.09
7	15.99	15.84	15.64	15.62	15.63	15.72	15.62	15.57	15.50	16.94	15.86	15.94
8	15.93	15.82	15.64	15.62	15.63	15.72	15.62	15.57	15.49	16.65	16.64	15.85
9	15.89	15.79	15.64	15.62	15.63	15.71	15.62	15.56	15.49	16.46	16.95	15.87
10	15.85	15.78	15.64	15.62	15.63	15.70	15.62	15.56	15.49	16.33	16.47	15.82
11	15.83	15.76	15.65	15.62	15.62	15.69	15.61	15.56	15.49	16.16	16.15	15.78
12	15.80	15.75	15.70	15.62	15.62	15.68	15.61	15.56	15.53	15.79	15.96	15.74
13	15.79	15.73	15.69	15.61	15.62	15.67	15.61	15.55	15.63	15.61	15.84	15.71
14	15.77	15.72	15.69	15.61	15.62	15.65	15.61	15.55	15.62	15.60	15.75	15.69
15	15.76	15.71	15.69	15.61	15.62	15.64	15.61	15.55	15.62	15.60	16.60	15.67
16	15.75	15.70	15.69	15.61	15.62	15.63	15.61	15.55	15.62	15.60	17.05	15.70
17	15.75	15.70	15.68	15.61	15.62	15.63	15.60	15.54	15.61	15.60	16.73	15.75
18	15.74	15.69	15.67	15.61	15.61	15.63	15.60	15.54	15.61	15.60	16.74	15.75
19	15.73	15.68	15.67	15.60	15.61	15.63	15.60	15.54	15.62	15.59	16.73	15.73
20	15.72	15.68	15.66	15.60	15.61	15.63	15.60	15.54	15.63	15.59	16.44	15.71
21	15.71	15.68	15.66	15.60	15.61	15.63	15.60	15.54	15.68	15.62	16.25	15.69
22	15.70	15.69	15.67	15.75	15.65	15.63	15.60	15.53	15.70	15.65	16.07	15.67
23	15.69	15.70	15.67	15.73	15.63	15.63	15.59	15.53	15.71	15.63	15.97	15.67
24	15.69	15.69	15.67	15.73	15.63	15.63	15.59	15.53	15.77	15.63	15.90	15.69
25	15.69	15.68	15.66	15.72	15.63	15.62	---	15.53	15.85	16.52	15.84	15.75
26	15.68	15.68	15.66	15.72	15.62	15.62	---	15.52	15.85	17.04	15.81	15.84
27	15.67	15.68	15.65	15.71	15.62	15.62	---	15.52	15.97	16.96	15.78	15.82
28	15.67	15.67	15.65	15.71	15.62	15.62	---	15.52	15.97	16.70	15.76	15.79
29	15.67	15.66	15.65	15.70	---	15.62	---	15.52	16.90	16.50	15.74	15.75
30	15.67	15.67	15.65	15.69	---	15.62	---	15.52	17.13	16.21	15.72	15.76
31	15.67	---	15.64	15.69	---	15.62	---	15.51	---	15.94	15.70	---
MEAN	15.81	15.73	15.66	15.65	15.63	15.65	---	---	15.72	16.33	16.08	15.85
MAX	16.27	15.90	15.70	15.75	15.68	15.73	---	---	17.13	17.97	17.05	16.66
MIN	15.67	15.65	15.64	15.60	15.61	15.62	---	---	15.49	15.59	15.63	15.67

CAL YR 1988 MEAN 15.76 MAX 18.25 MIN 14.82

264139082022100 GATOR SLOUGH AT SR 765 NEAR FT. MYERS, FL

LOCATION.--Lat 26°41'39", long 82°02'01" in NW¼ sec.32, T.43 S., R.23 E., Lee County, Hydrologic Unit 03100103, 100 ft upstream from bridge on State Highway 765 (Burnt Store Road) in Cape Coral, 2.7 mi upstream from mouth and 12 mi northwest of Ft. Myers.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--1973-83 (annual maximum gage heights, only), May 1984 to current year. Prior to 1984, published as "near Pine Island."

GAGE.--Water-stage recorder and concrete control. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily stage and discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 901 ft^3/s Aug. 21, 1986, gage height, 4.51 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 236 ft^3/s Nov. 23, gage height, 3.27 ft; minimum discharge, no flow for many days; minimum gage height, 2.35 ft June 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	4.6	8.3	2.4	8.2	3.7	4.8	.22	.00	182		---
2	22	3.7	7.3	2.4	8.2	3.7	2.9	.31	.00	188		---
3	38	2.9	6.5	2.5	7.4	22	1.9	.00	.00	193		---
4	47	42	6.1	2.9	6.5	19	2.3	.00	.00	206		---
5	45	32	5.9	2.4	6.8	14	2.8	.00	.00	188		---
6	38	28	6.5	2.3	6.7	13	1.3	.00	.00	---		---
7	30	24	6.5	1.8	6.5	14	.33	.00	.00	---		114
8	26	23	6.5	1.6	5.9	14	.92	.00	.00	---		96
9	24	22	6.0	.84	4.7	13	1.4	.00	.00	---		65
10	21	21	5.0	1.2	3.1	11	1.4	.00	.00	---		74
11	20	20	5.0	1.4	3.0	9.9	1.2	.00	.00	---		47
12	19	17	11	.73	3.2	9.3	1.2	.00	.00	---		26
13	17	16	7.8	.50	3.3	9.9	1.2	.00	.00	---		30
14	15	14	7.0	.54	3.8	9.8	2.2	.00	.00	---		14
15	14	13	7.4	.16	3.6	9.1	2.4	.00	.00	---		6.9
16	14	12	7.7	.00	3.3	8.5	2.2	.00	.00	---		3.6
17	13	12	6.0	.00	2.5	9.9	1.9	.00	.00	---		1.7
18	12	11	5.2	.00	1.9	9.3	2.7	2.3	.00	---		.32
19	11	10	5.0	.04	2.4	8.2	5.3	9.9	2.2	---		.00
20	11	8.8	5.2	.02	2.2	8.4	2.1	4.1	9.3	---		.00
21	11	8.2	5.0	2.0	2.6	8.2	1.4	2.2	14	---		.00
22	9.4	11	4.4	27	8.1	8.6	1.7	1.4	47	---		.00
23	9.0	77	4.7	16	5.2	9.0	1.4	.64	33	---		.10
24	8.7	12	5.0	12	2.9	8.5	1.2	.50	45	---		.00
25	7.2	10	5.0	9.8	2.2	6.3	.85	.13	44	---		6.8
26	7.4	10	5.0	8.2	2.1	6.1	.36	.29	40	---		21
27	6.5	10	4.6	7.0	2.4	6.1	.00	.13	47	---		17
28	5.9	12	3.6	8.7	2.5	5.5	.00	.00	46	---		9.7
29	5.0	10	3.7	9.9	---	4.8	.00	.08	66	---		6.3
30	5.0	9.3	3.7	8.8	---	4.7	.00	.00	118	---		8.7
31	4.6	---	3.1	8.2	---	3.8	---	.00	---	---		---
TOTAL	538.7	506.5	179.7	141.33	121.2	291.3	49.36	22.20	511.50	---		---
MEAN	17.4	16.9	5.80	4.56	4.33	9.40	1.65	.72	17.1	---		---
MAX	47	77	11	27	8.2	22	5.3	9.9	118	---		---
MIN	4.6	2.9	3.1	.00	1.9	3.7	.00	.00	.00	---		---
AC-FT	1070	1000	356	280	240	578	98	44	1010	---		---

CAL YR 1988 TOTAL 14281.08 MEAN 39.0 MAX 507 MIN .00 AC-FT 28330

264139082022100 GATOR SLOUGH AT SR 765 NEAR FT. MYERS, FL

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.70	2.62	2.61	2.56	2.59	2.56	2.57	2.49	2.47	3.27		---
2	2.70	2.61	2.60	2.56	2.59	2.56	2.55	2.48	2.47	3.30		---
3	2.76	2.60	2.60	2.56	2.59	2.66	2.55	2.48	2.46	3.33		---
4	2.80	2.78	2.60	2.56	2.58	2.64	2.55	2.47	2.46	3.37		---
5	2.79	2.74	2.60	2.56	2.58	2.62	2.55	2.47	2.46	3.34		---
6	2.77	2.72	2.60	2.56	2.58	2.61	2.54	2.46	2.45	---		---
7	2.74	2.71	2.60	2.55	2.58	2.62	2.53	2.46	2.44	---		3.16
8	2.73	2.71	2.60	2.55	2.58	2.62	2.53	2.46	2.44	---		3.11
9	2.72	2.70	2.60	2.54	2.57	2.61	2.53	2.45	2.44	---		3.02
10	2.71	2.69	2.59	2.55	2.56	2.61	2.53	2.46	2.41	---		3.04
11	2.70	2.69	2.59	2.55	2.55	2.60	2.53	2.46	2.43	---		2.96
12	2.70	2.68	2.62	2.54	2.56	2.60	2.53	2.46	2.42	---		2.88
13	2.69	2.67	2.61	2.54	2.56	2.60	2.53	2.45	2.42	---		2.89
14	2.68	2.66	2.60	2.54	2.56	2.60	2.54	2.45	2.40	---		2.82
15	2.67	2.66	2.61	2.53	2.56	2.60	2.54	2.45	2.39	---		2.78
16	2.67	2.65	2.61	2.53	2.56	2.59	2.53	2.44	2.37	---		2.76
17	2.67	2.65	2.60	2.53	2.55	2.60	2.52	2.44	2.41	---		2.74
18	2.66	2.65	2.59	2.53	2.54	2.60	2.53	2.48	2.41	---		2.73
19	2.66	2.64	2.59	2.53	2.55	2.59	2.55	2.57	2.48	---		2.72
20	2.65	2.63	2.59	2.53	2.55	2.59	2.53	2.53	2.60	---		2.71
21	2.66	2.63	2.59	2.55	2.55	2.59	2.52	2.52	2.62	---		2.69
22	2.65	2.65	2.59	2.69	2.59	2.59	2.52	2.51	2.80	---		2.68
23	2.65	2.85	2.58	2.64	2.57	2.59	2.52	2.50	2.74	---		2.70
24	2.64	2.63	2.58	2.62	2.55	2.59	2.51	2.50	2.79	---		2.71
25	2.63	2.62	2.58	2.61	2.55	2.58	2.50	2.49	2.79	---		2.77
26	2.64	2.62	2.58	2.60	2.55	2.58	2.50	2.50	2.77	---		2.86
27	2.63	2.62	2.58	2.59	2.55	2.58	2.48	2.49	2.80	---		2.84
28	2.63	2.63	2.57	2.60	2.55	2.57	2.47	2.49	2.79	---		2.80
29	2.62	2.62	2.57	2.60	---	2.57	2.48	2.49	2.87	---		2.78
30	2.62	2.62	2.57	2.59	---	2.57	2.49	2.49	3.06	---		2.79
31	2.62	---	2.57	2.59	---	2.56	---	2.48	---	---		---
MEAN	2.68	2.67	2.59	2.57	2.56	2.60	2.53	2.48	2.56	---		---
MAX	2.80	2.85	2.62	2.69	2.59	2.66	2.57	2.57	3.06	---		---
MIN	2.62	2.60	2.57	2.53	2.54	2.56	2.47	2.44	2.37	---		---

CAL YR 1988 MEAN 2.70 MAX 3.80 MIN 2.48

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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